

**CSMP Mathematics  
for the  
Upper Primary Grades  
Part IV**

**Worksheets**

# What's In This Book?

This book contains all the worksheets you will need for *CSMP for the Upper Primary Grades, Part IV*. Worksheets are labeled with the same letter and number as the lessons with which they are used. In this book, they are in the following order:

## **N** Worksheets

N1	N14	N24
N2	N16	N26
N3	N18	N32
N4	N19	N34
N6	N20	
N12	N22	

## **L** Worksheets

L2	L7	L12
L4	L8	L14
L6	L11	

## **G** Worksheets

G1	G5	G9
G2	G6	G10
G3	G7	G11
G4	G8	G12

## **W** Worksheets

W3	W17
----	-----

Name \_\_\_\_\_

N1 \*

Pair names for the same number. Two are paired for you.

$$436 + \widehat{10}$$

$$268 + \widehat{20}$$

$$186 + \widehat{4}$$

$$467 + \widehat{41}$$

$$348 + \widehat{100}$$

$$192 + \widehat{10}$$

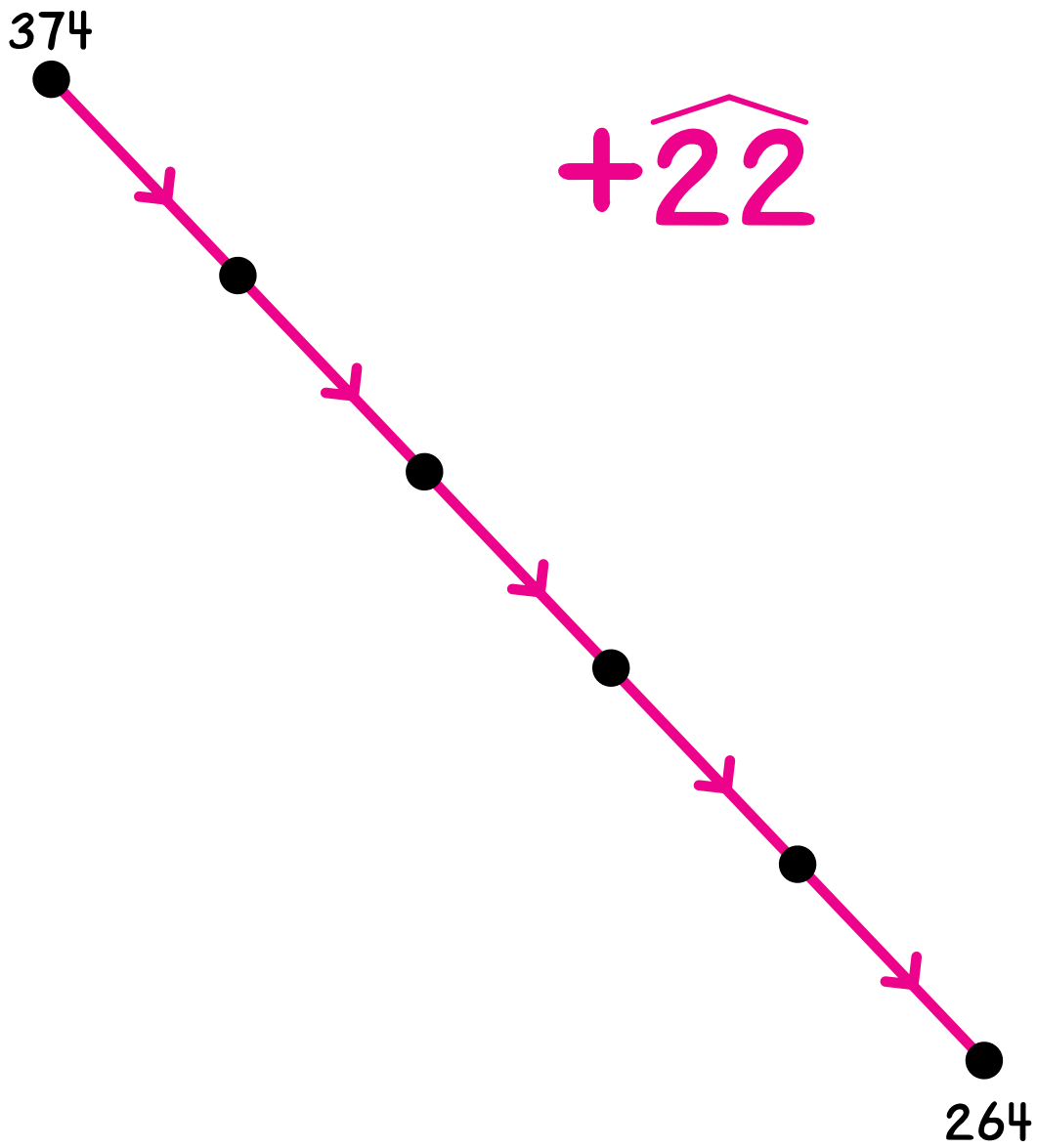
$$294 + \widehat{80}$$

$$217 + \widehat{3}$$

Name \_\_\_\_\_

N1	**
----	----

Label the dots.



Name \_\_\_\_\_

N1 \*\*\*

Pair names for the same number.

$$190 + \widehat{8}$$

$$474 + \widehat{48}$$

$$506 + \widehat{80}$$

$$470 + \widehat{222}$$

$$111 + \widehat{82}$$

$$391 + \widehat{209}$$

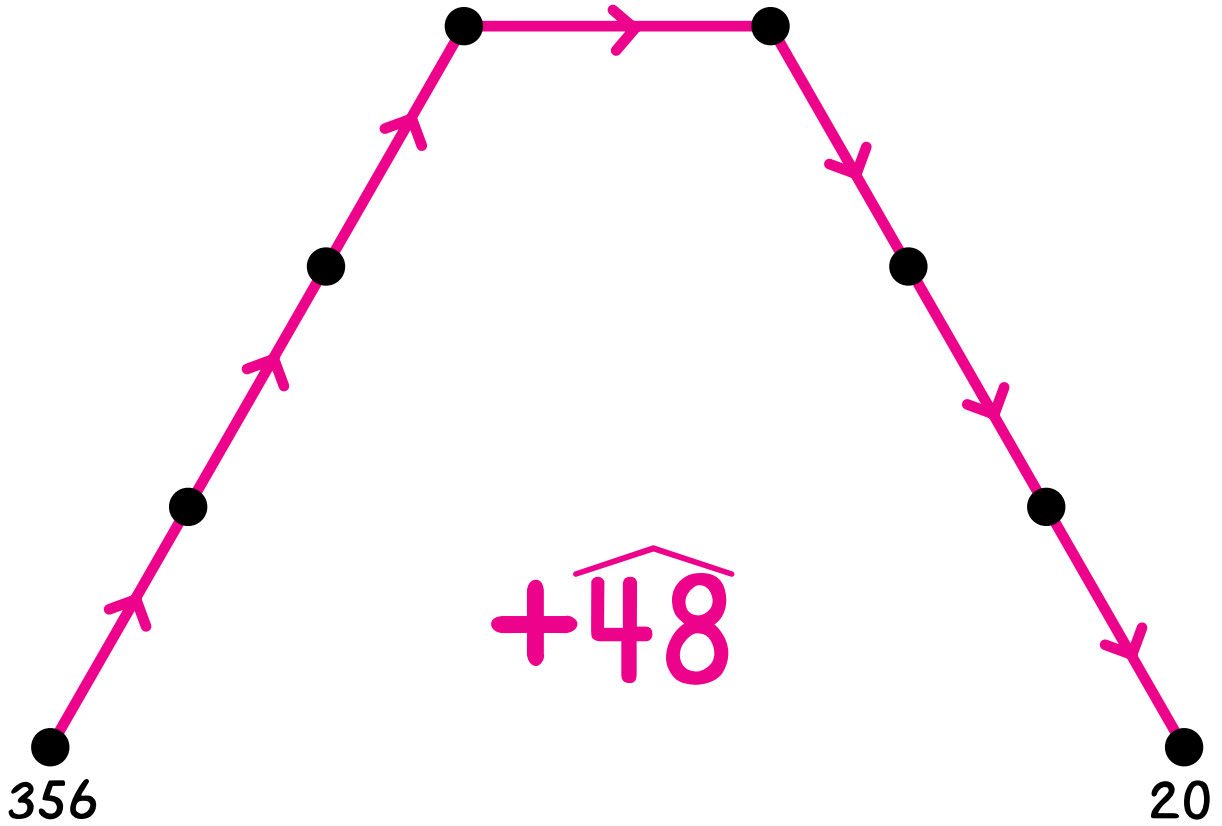
$$1,050 + \widehat{802}$$

$$850 + \widehat{821}$$

Name \_\_\_\_\_

N1      \*\*\*\*

Label the dots.



Name \_\_\_\_\_

N2	*
----	---

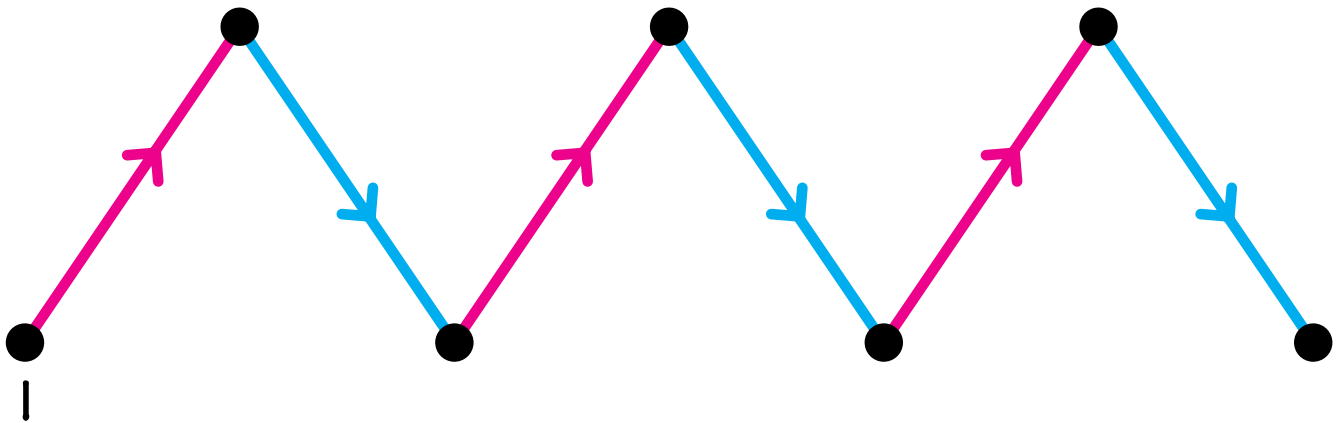
Label the dots.

Draw all the possible 6x arrows in gray.

3x

2x

6x

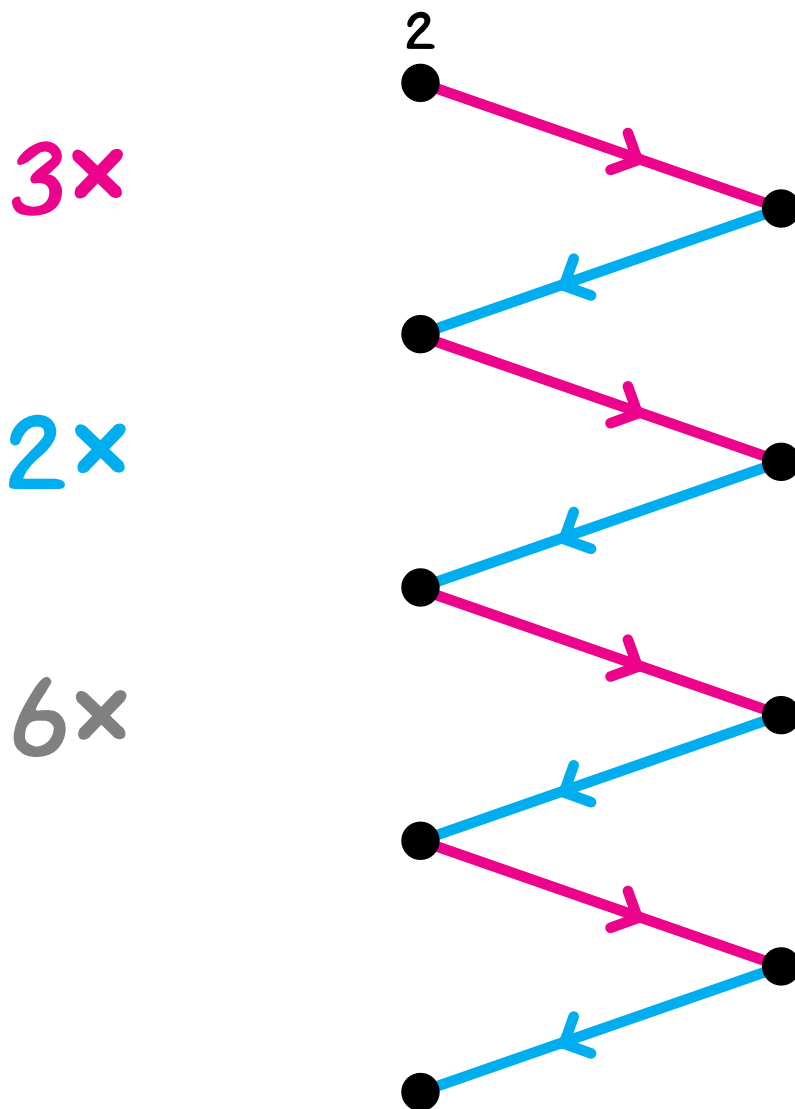


You should have five gray arrows.

Name \_\_\_\_\_

Label the dots.

Draw all the possible 6x arrows in gray.



You should have seven gray arrows.



Name \_\_\_\_\_

N3 \*

Complete.

$$8 - 5 = \square$$

$$10 - 5 = \square$$

$$9 - 6 = \square$$

$$12 - 7 = \square$$

$$10 - \square = 3$$

$$14 - \square = 5$$

$$\square - 8 = 3$$

$$\square - 11 = 5$$

$$7 - 8 = \square$$

$$20 - 10 = \square$$

$$8 - 8 = \square$$

$$30 - \square = 20$$

$$\square - 8 = 1$$

$$\square - 10 = 30$$

$$10 - \square = 2$$

$$50 - \square = 40$$

Name \_\_\_\_\_

N3

\*\*

Complete.

$$\begin{array}{r} 18 \\ -10 \\ \hline \end{array}$$

$$\begin{array}{r} 19 \\ -11 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \\ -\square \\ \hline 8 \end{array}$$

$$\begin{array}{r} \square \\ -13 \\ \hline 8 \end{array}$$

---

$$\begin{array}{r} 42 \\ -21 \\ \hline \end{array}$$

$$\begin{array}{r} 41 \\ -\square \\ \hline 20 \end{array}$$

$$\begin{array}{r} 40 \\ -21 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ -21 \\ \hline 18 \end{array}$$

---

$$\begin{array}{r} 14 \\ -7 \\ \hline \end{array}$$

$$\begin{array}{r} 16 \\ -\square \\ \hline 7 \end{array}$$

$$\begin{array}{r} \square \\ -10 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 20 \\ -13 \\ \hline \end{array}$$

---

$$\begin{array}{r} 13 \\ -8 \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ -18 \\ \hline \end{array}$$

$$\begin{array}{r} 33 \\ -28 \\ \hline \end{array}$$

$$\begin{array}{r} 43 \\ -38 \\ \hline \end{array}$$

Name \_\_\_\_\_

N3 \*\*\*

Pair names for the same number.

$$36 - 24$$

$$73 - 50$$

$$72 - 49$$

$$75 - 34$$

$$47 - 20$$

$$100 - 57$$

$$99 - 56$$

$$40 - 28$$

$$70 - 29$$

$$44 - 17$$

Name \_\_\_\_\_

N3

\*\*\*\*

Pair names for the same number.

$$86 - 35$$

$$85 - 49$$

$$71 - 18$$

$$80 - 46$$

$$100 - 66$$

$$90 - 39$$

$$95 - 66$$

$$91 - 38$$

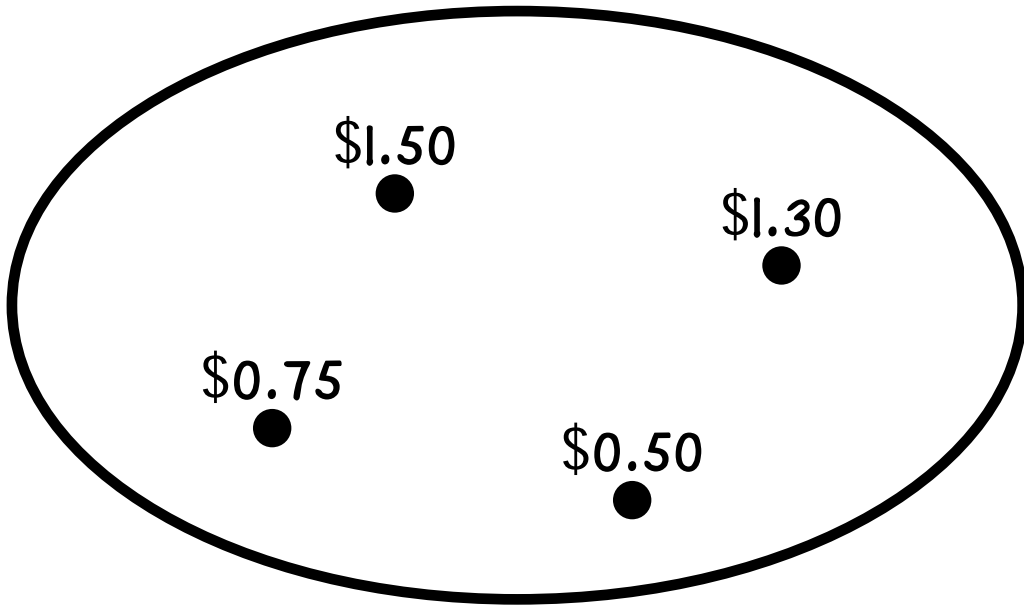
$$81 - 45$$

$$88 - 59$$

Name \_\_\_\_\_

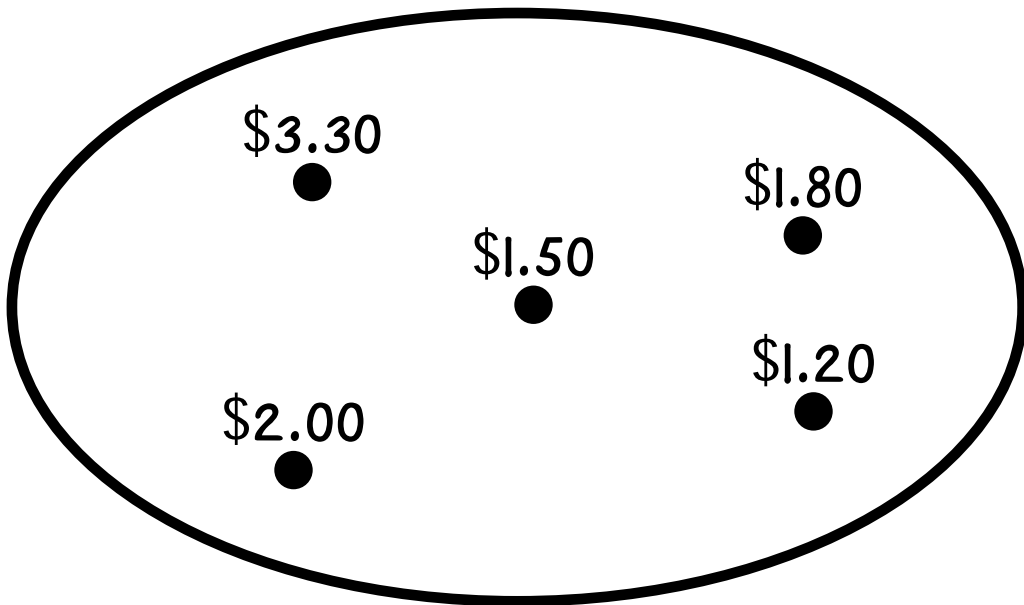
N4 \*

Carmen buys two different games and spends exactly \$2.  
Draw one string around the prices of these two games.



---

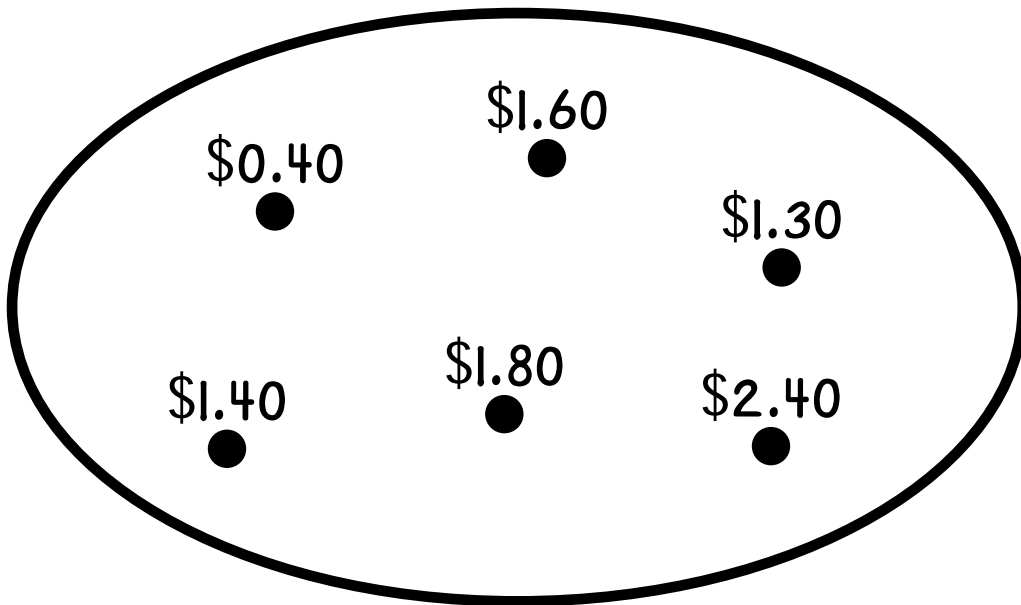
Anthony buys two different books and spends exactly \$3.  
Draw one string around the prices of these two books.



Name \_\_\_\_\_

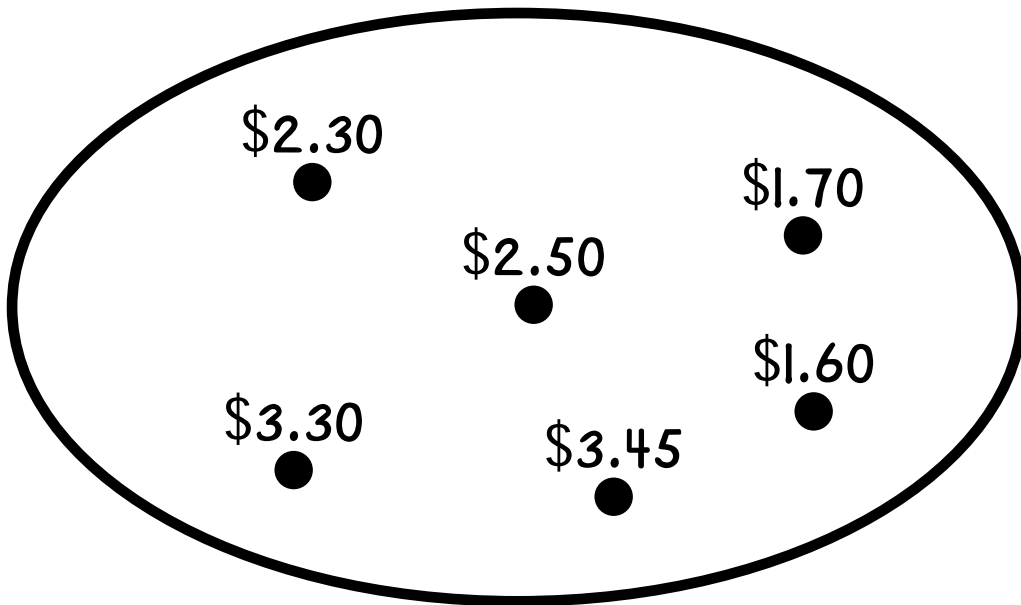
N4 \*\*

William buys two different magic tricks and spends exactly \$3.  
Draw one string around the prices of these two magic tricks.



---

Sharon buys two different paint sets and spends exactly \$5.  
Draw one string around the prices of these two paint sets.

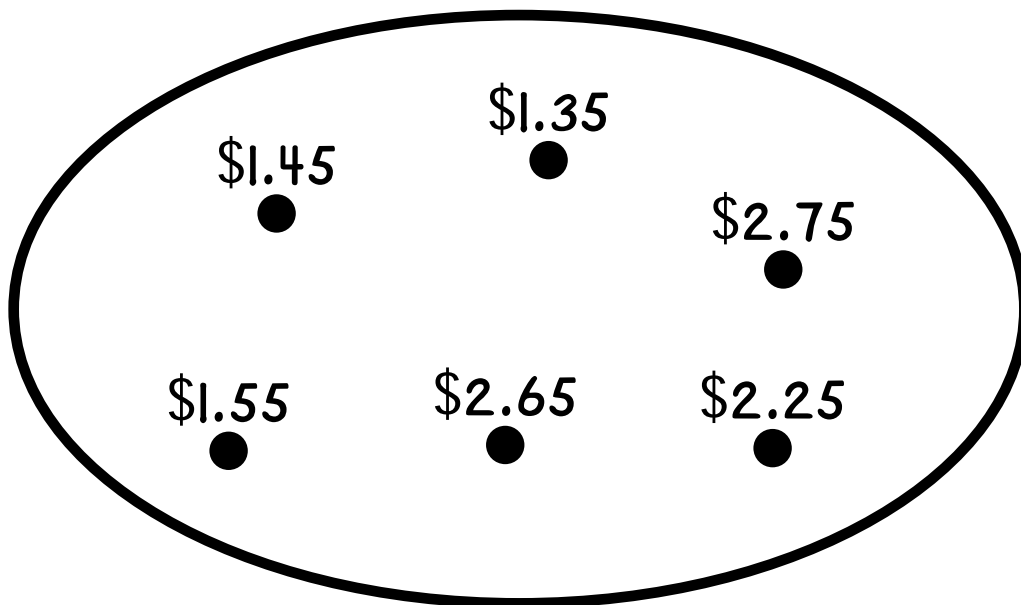


Name \_\_\_\_\_

N4

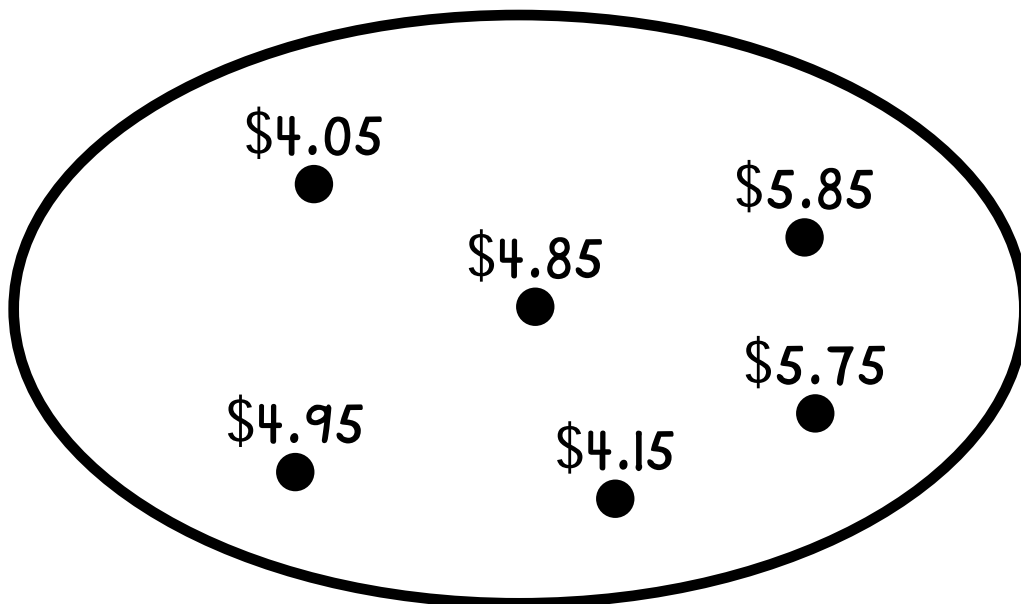
\*\*\*

Elizabeth buys two different scarfs and spends exactly \$4.  
Draw one string around the prices of these two scarfs.



---

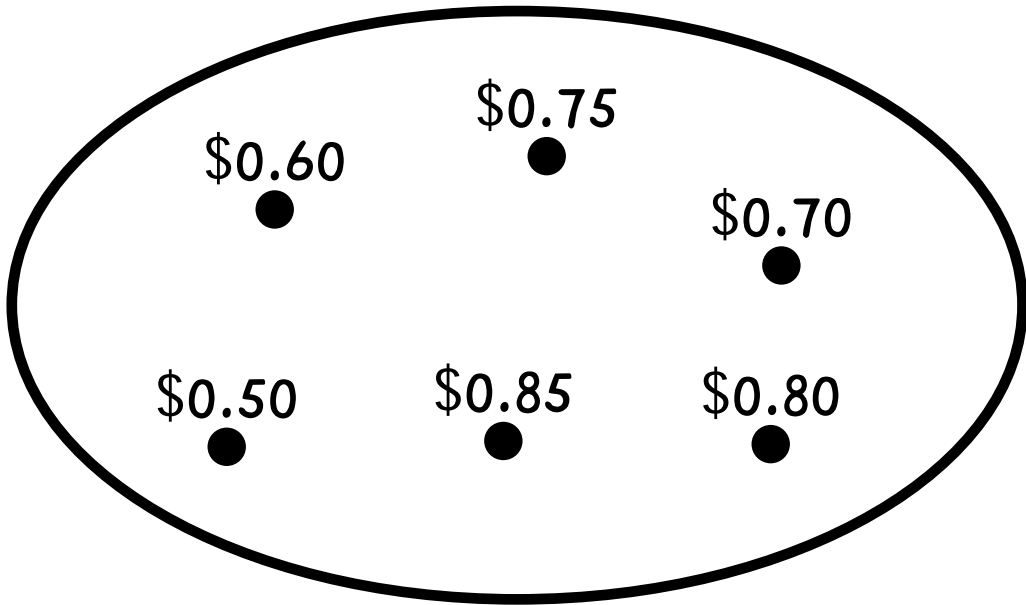
Scott buys two different hats and spends exactly \$10.  
Draw one string around the prices of these two hats.



Name \_\_\_\_\_

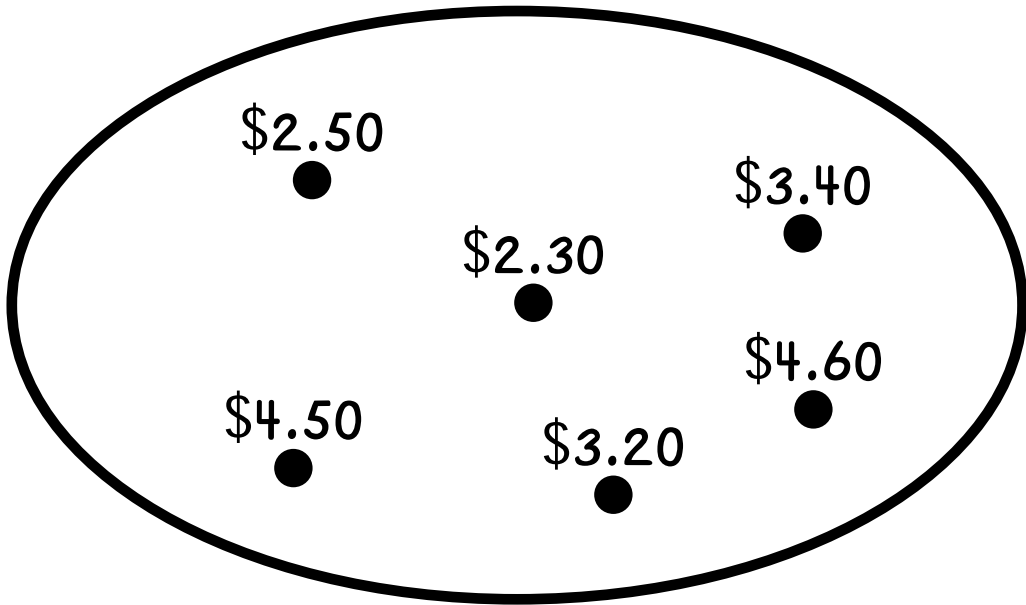
N4 \*\*\*\*\*

Pat buys three different whistles and spends exactly \$2.  
Draw one string around the prices of these three whistles.



---

Elliot buys three different records and spends exactly \$10.  
Draw one string around the prices of these three records.





Name \_\_\_\_\_

N6

\*

Complete.

$$\frac{1}{2} \times 10 = \underline{\quad}$$

$$\frac{1}{2} \times 14 = \underline{\quad}$$

$$\frac{1}{2} \times 12 = \underline{\quad}$$

$$\frac{1}{2} \times 18 = \underline{\quad}$$

$$\frac{1}{2} \times 20 = \underline{\quad}$$

$$\frac{1}{2} \times 26 = \underline{\quad}$$

$$\frac{1}{2} \times 40 = \underline{\quad}$$

$$\frac{1}{2} \times 48 = \underline{\quad}$$

$$\frac{1}{2} \times 50 = \underline{\quad}$$

$$\frac{1}{2} \times 52 = \underline{\quad}$$

$$\frac{1}{2} \times 30 = \underline{\quad}$$

$$\frac{1}{2} \times 36 = \underline{\quad}$$

$$\frac{1}{2} \times 100 = \underline{\quad}$$

$$\frac{1}{2} \times 120 = \underline{\quad}$$

$$\frac{1}{2} \times 124 = \underline{\quad}$$

$$\frac{1}{2} \times 130 = \underline{\quad}$$

Name \_\_\_\_\_

N6

\*\*

Complete.

$$\frac{1}{3} \times 30 = \underline{\quad}$$

$$\frac{1}{3} \times 36 = \underline{\quad}$$

$$\frac{1}{3} \times 90 = \underline{\quad}$$

$$\frac{1}{3} \times 99 = \underline{\quad}$$

$$\frac{1}{3} \times 45 = \underline{\quad}$$

$$\frac{1}{3} \times 105 = \underline{\quad}$$

$$\frac{1}{3} \times 120 = \underline{\quad}$$

$$\frac{1}{3} \times 117 = \underline{\quad}$$

$$\frac{1}{2} \times 5 = 2.5$$

$$\frac{1}{2} \times 25 = \underline{\quad}$$

$$\frac{1}{2} \times 45 = \underline{\quad}$$

$$\frac{1}{2} \times 51 = \underline{\quad}$$

$$\frac{1}{2} \times 6.40 = \underline{\quad}$$

$$\frac{1}{2} \times 3.00 = \underline{\quad}$$

$$\frac{1}{2} \times 0.52 = \underline{\quad}$$

$$\frac{1}{2} \times 3.52 = \underline{\quad}$$

Name \_\_\_\_\_

N12 \*

Complete.

$$\frac{1}{2} \times 20 = \underline{\quad}$$

$$60 \div 2 = \underline{\quad}$$

$$\frac{1}{2} \times 24 = \underline{\quad}$$

$$68 \div 2 = \underline{\quad}$$

$$\frac{1}{2} \times 40 = \underline{\quad}$$

$$80 \div 2 = \underline{\quad}$$

$$\frac{1}{2} \times 46 = \underline{\quad}$$

$$82 \div 2 = \underline{\quad}$$

$$\frac{1}{2} \times 50 = \underline{\quad}$$

$$30 \div 2 = \underline{\quad}$$

$$\frac{1}{2} \times 52 = \underline{\quad}$$

$$32 \div 2 = \underline{\quad}$$

$$\frac{1}{2} \times 54 = \underline{\quad}$$

$$34 \div 2 = \underline{\quad}$$

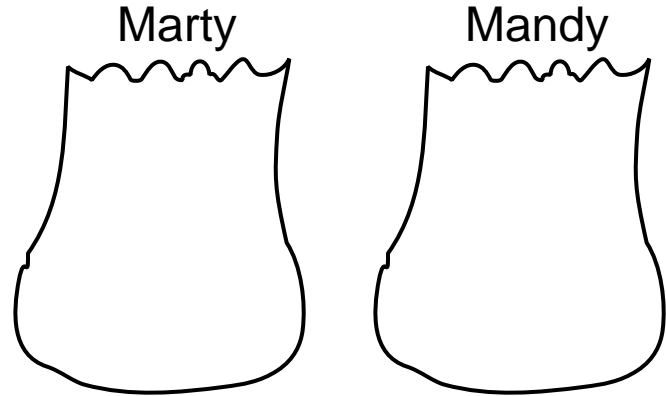
$$\frac{1}{2} \times 56 = \underline{\quad}$$

$$36 \div 2 = \underline{\quad}$$

Name \_\_\_\_\_

N12 \*\*

Share 234 marbles between  
Marty and Mandy.



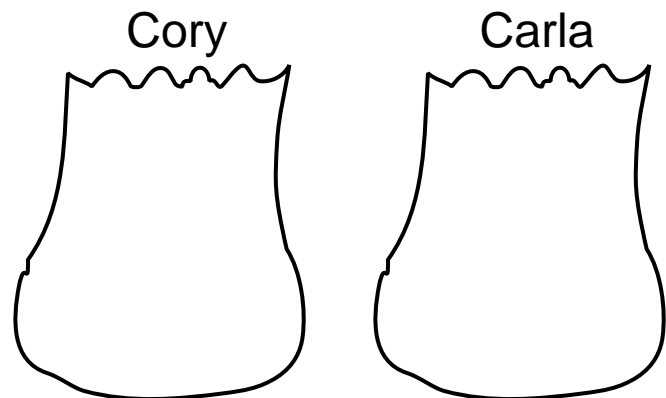
Complete.

$$234 \div 2 = \underline{\quad}$$

$$\frac{1}{2} \times 234 = \underline{\quad}$$

---

Share 346 cards between  
Cory and Carla.



Complete.

$$346 \div 2 = \underline{\quad}$$

$$\frac{1}{2} \times 346 = \underline{\quad}$$

Name \_\_\_\_\_

N12 \*\*\*

Complete.

$$4 \div 2 = \underline{\quad}$$

$$5 \div 2 = \underline{\quad}$$

$$6 \div 2 = \underline{\quad}$$

$$7 \div 2 = \underline{\quad}$$

$$\frac{1}{2} \times 600 = \underline{\quad}$$

$$\frac{1}{2} \times 640 = \underline{\quad}$$

$$\frac{1}{2} \times 642 = \underline{\quad}$$

$$\frac{1}{2} \times 650 = \underline{\quad}$$

$$100 \div 2 = \underline{\quad}$$

$$30 \div 2 = \underline{\quad}$$

$$8 \div 2 = \underline{\quad}$$

$$138 \div 2 = \underline{\quad}$$

$$\frac{1}{2} \times 500 = \underline{\quad}$$

$$\frac{1}{2} \times 90 = \underline{\quad}$$

$$\frac{1}{2} \times 6 = \underline{\quad}$$

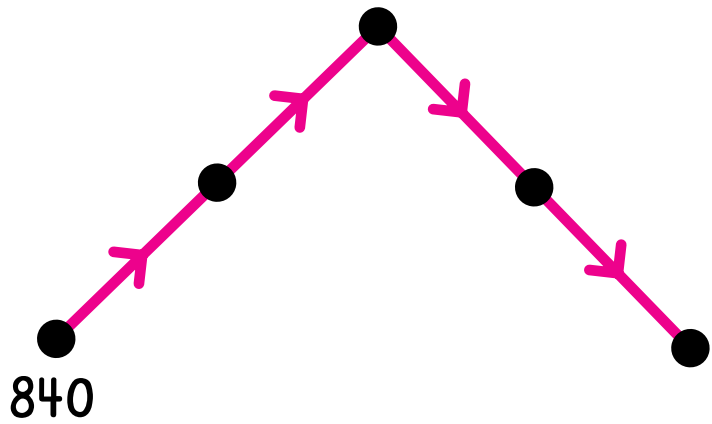
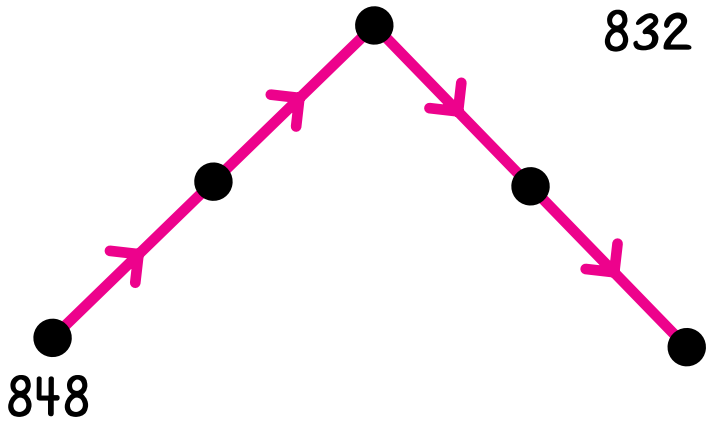
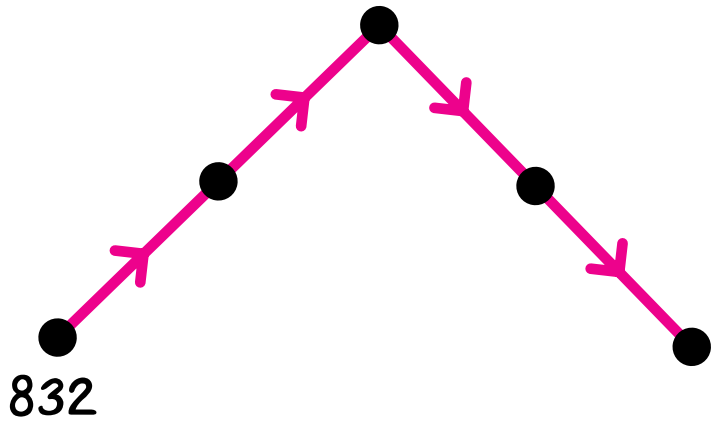
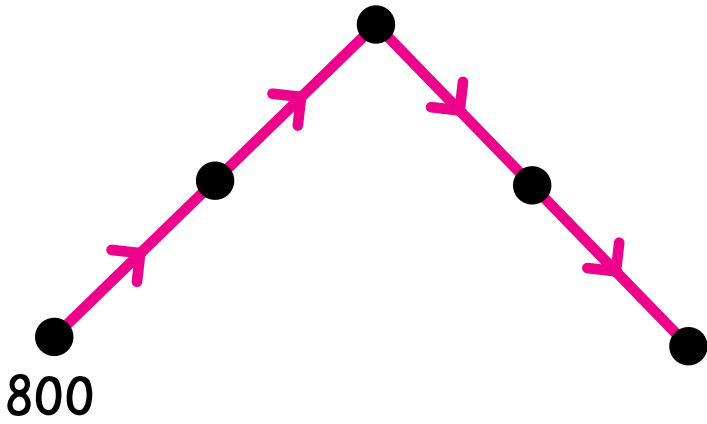
$$\frac{1}{2} \times 596 = \underline{\quad}$$

Name \_\_\_\_\_

N12 \* \* \* \* \*

Label the dots.

$$\frac{1}{2} \times$$



Name \_\_\_\_\_

N14 \*

Build an arrow road between 5 and 16 using  $2x$ ,  $+1$ , and  $-1$  arrows. Try to use as few arrows as possible.

$2x$

$+1$

$-1$

16  
●

●  
5

Name \_\_\_\_\_

N14 \*\*

Build an arrow road between these pairs of numbers using  $2x$ ,  $+1$ , and  $-1$  arrows. Try to use as few arrows as possible.

$2x$

$+1$

$-1$

9  
●

●  
31

---

50  
●

●  
11



Name \_\_\_\_\_

N14 \*\*\*

Build an arrow road between these pairs of numbers using  $2x$ ,  $+1$ , and  $-1$  arrows. Try to use as few arrows as possible.

$2x$

$+1$

$-1$

100  
●

●  
20

7  
●

---

●  
63

Name \_\_\_\_\_

N14 \*\*\*\*

Build an arrow road between these pairs of numbers using  $2x$ ,  $+1$ , and  $-1$  arrows. Try to use as few arrows as possible.

$2x$

$+1$

$-1$

13  
●

●  
88

---

99  
●

●  
30

Name \_\_\_\_\_

N16 \*

Build an arrow road between these pairs of numbers using  $10\times$ ,  $+1$ , and  $-1$  arrows. Try to use as few arrows as possible.

$10\times$

$+1$

$-1$

2 ●

●  
53

3 ●

●  
24

Name \_\_\_\_\_

N16 \*\*

Build an arrow road between these pairs of numbers using  $10x$ ,  $+1$ , and  $-1$  arrows. Try to use as few arrows as possible.

$10x$

$+1$

$-1$

8 ●

●  
115

14 ●

●  
108

Name \_\_\_\_\_

N16 \*\*\*

Build an arrow road between these pairs of numbers using  $10\times$ ,  $+1$ , and  $-1$  arrows. Try to use as few arrows as possible.

$10\times$

$+1$

$-1$

507  
●

●  
5

---

570  
●

●  
5

Name \_\_\_\_\_

N16 \*\*\*\*

Build an arrow road between these pairs of numbers using  $10x$ ,  $+1$ , and  $-1$  arrows. Try to use as few arrows as possible.

$10x$

$+1$

$-1$

989  
●

●  
7

---

12  
●

●  
1,084

Name \_\_\_\_\_

N18 \*

Share 26 cards fairly between Dick and Nina.

For Dick	For Nina

Write a number sentence about this sharing.

---

Share 27 pencils fairly among Andrea, Sheila, and Rob.

For Andrea	For Sheila	For Rob

Write a number sentence about this sharing.

Share 34 pennies fairly between Pat and Gary.

For Pat	For Gary

Write a number sentence about this sharing.



Share 54 dimes fairly among Bill, Stanley, and Lisa.

For Bill	For Stanley	For Lisa

Write a number sentence about this sharing.



Name \_\_\_\_\_

N18 \*\*

Share 114 pictures fairly between Arthur and Maria.

For Arthur	For Maria

Write a number sentence about this sharing.

---

Share 81 candies fairly among Nora, Brad, and Mark.

For Nora	For Brad	For Mark

Write a number sentence about this sharing.

Share 186 stamps fairly between Andy and Pam.

For Andy	For Pam

Write a number sentence about this sharing.



Share 129 marbles fairly among John, Ann, and Cathy.

For John	For Ann	For Cathy

Write a number sentence about this sharing.

Name \_\_\_\_\_

Share 483 stickers fairly among Paula, Stacey, and Joy.

For Paula	For Stacey	For Joy

Write a number sentence about this sharing.

---

Share 732 cards among Wally, James, Amy, and Jade.

For Wally	For James	For Amy	For Jade

Write a number sentence about this sharing.

Name \_\_\_\_\_

Share 819 seeds fairly among Mike, Ellen, and Eric.

For Mike	For Ellen	For Eric

Write a number sentence about this sharing.

---

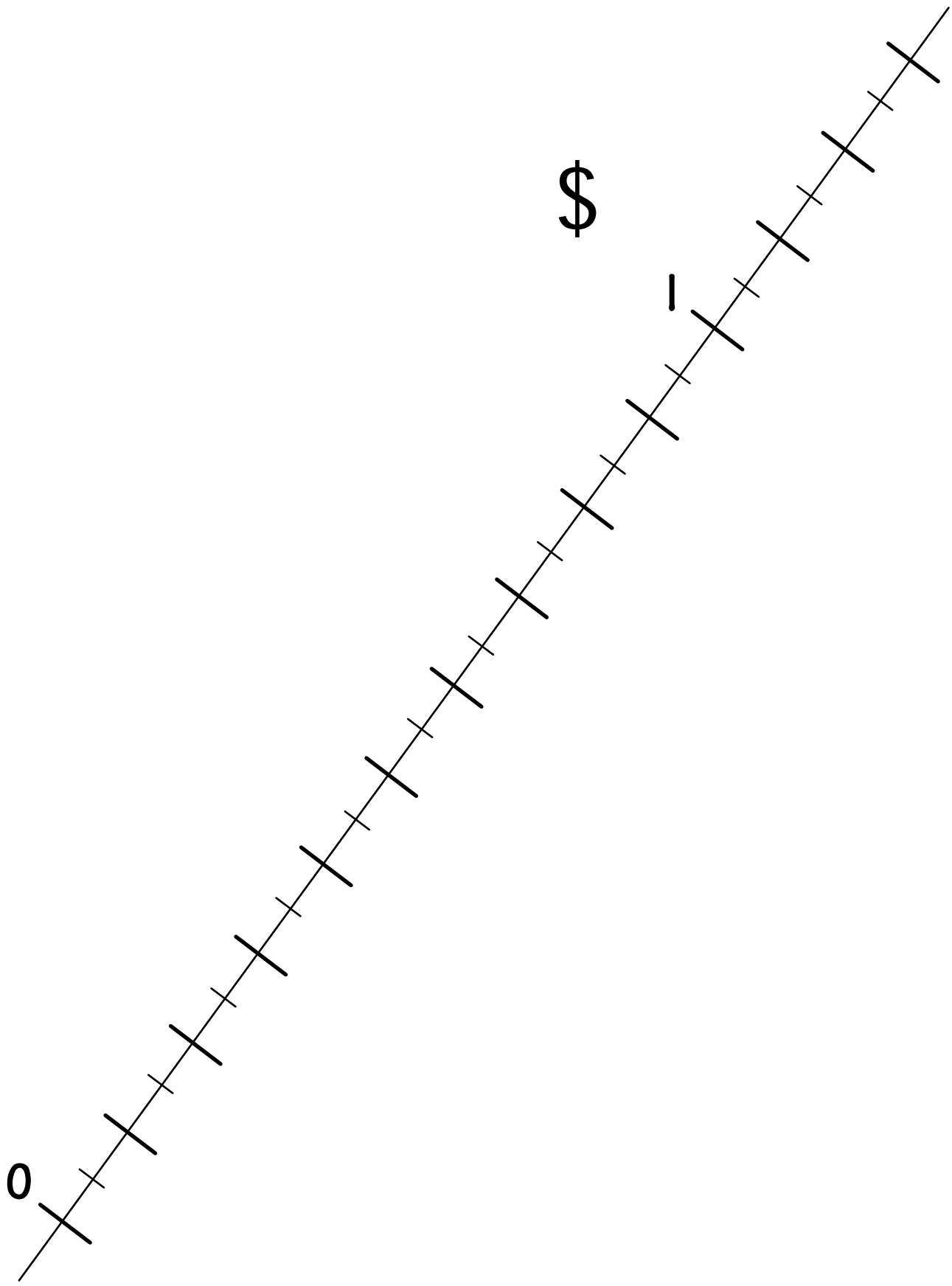
Share 1,935 books among Sandra, Leo, Christy, Sharone, and Maia.

For Sandra	For Leo	For Christy	For Sharone	For Maia

Write a number sentence about this sharing.

Name \_\_\_\_\_

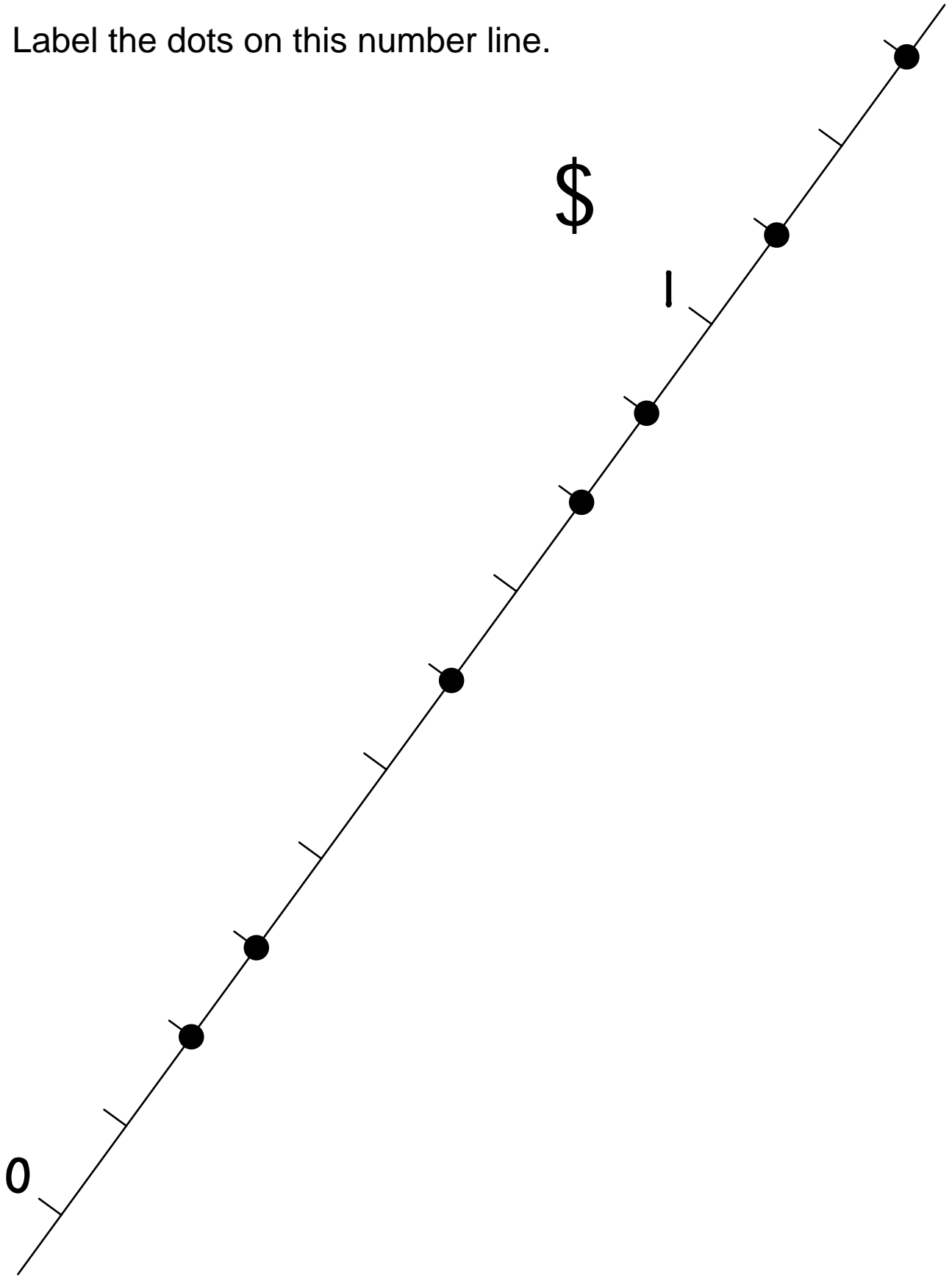
N19



Name \_\_\_\_\_

N19 \*

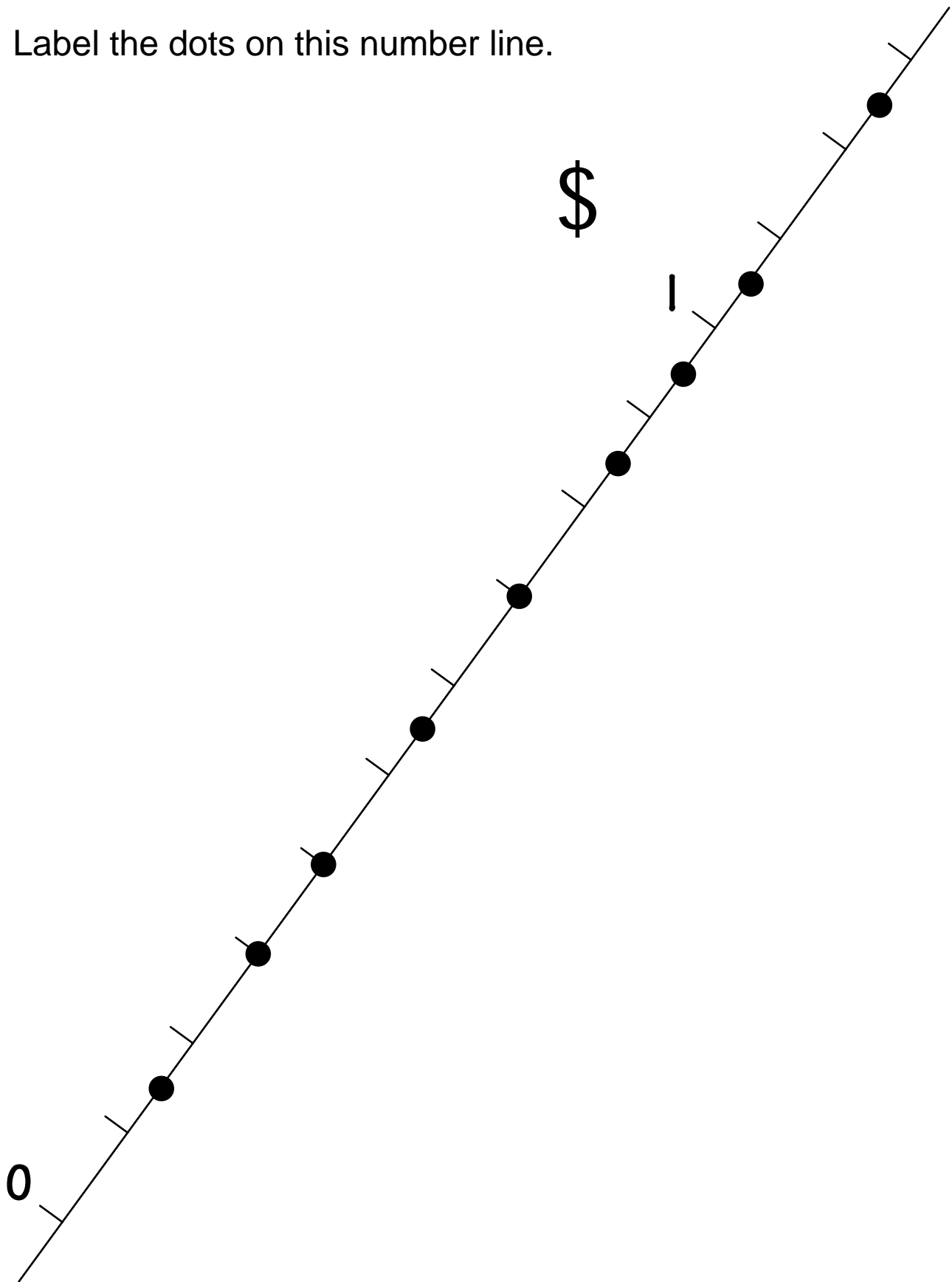
Label the dots on this number line.



Name \_\_\_\_\_

N19 \*\*

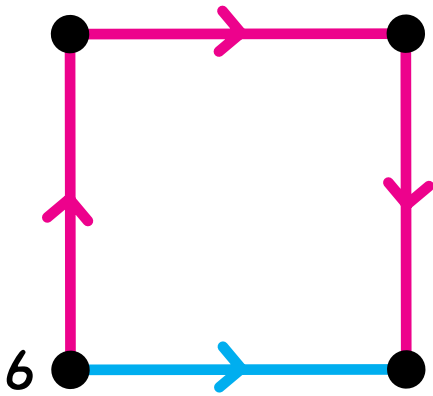
Label the dots on this number line.



Name \_\_\_\_\_

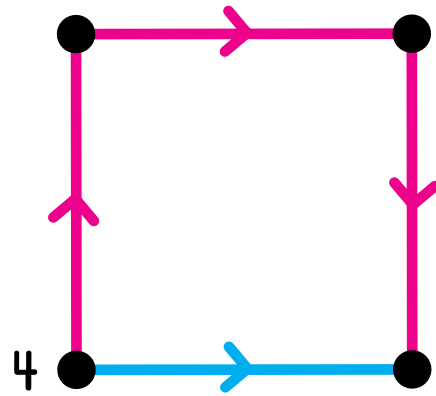
Label the dots and complete the multiplication facts.

2x

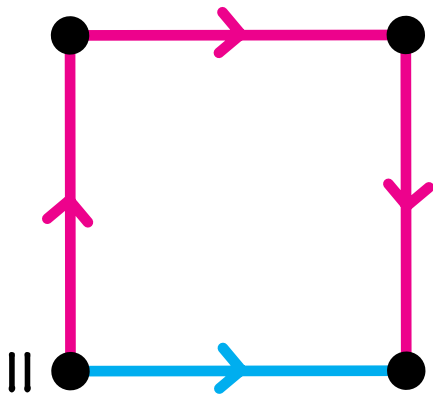


$8 \times 6 = \underline{\quad}$

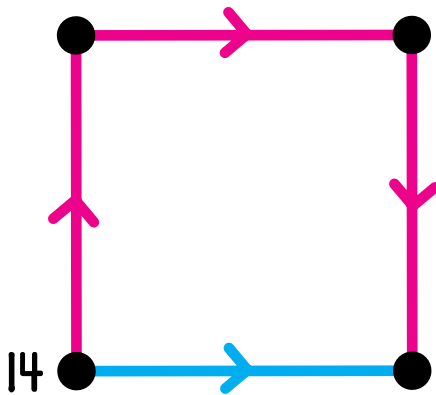
8x



$8 \times 4 = \underline{\quad}$



$8 \times 11 = \underline{\quad}$



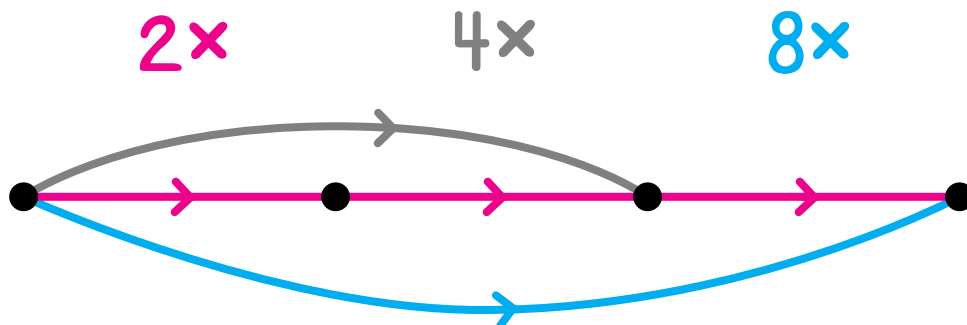
$8 \times 14 = \underline{\quad}$



Name \_\_\_\_\_

N20 \*\*

Complete this table.



Starting Number	2x	4x	8x
9			
17			
23			
38			
47			

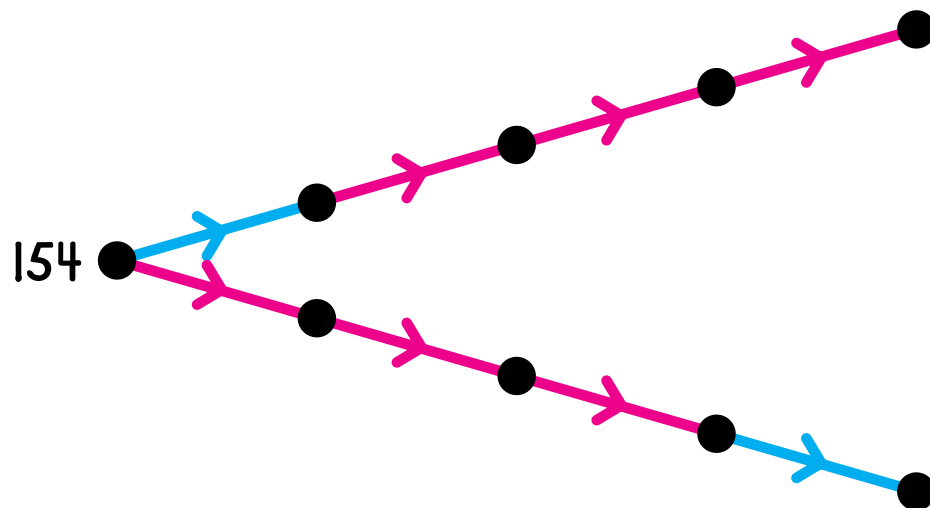
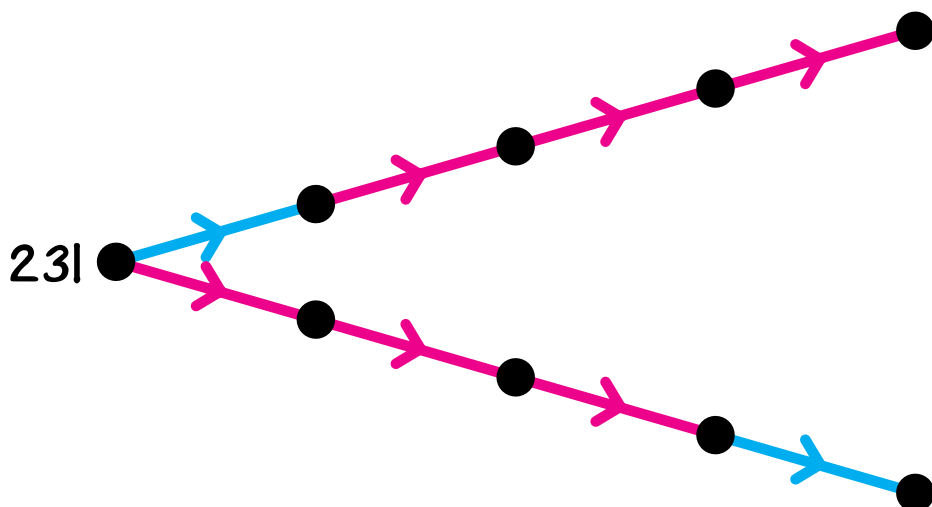
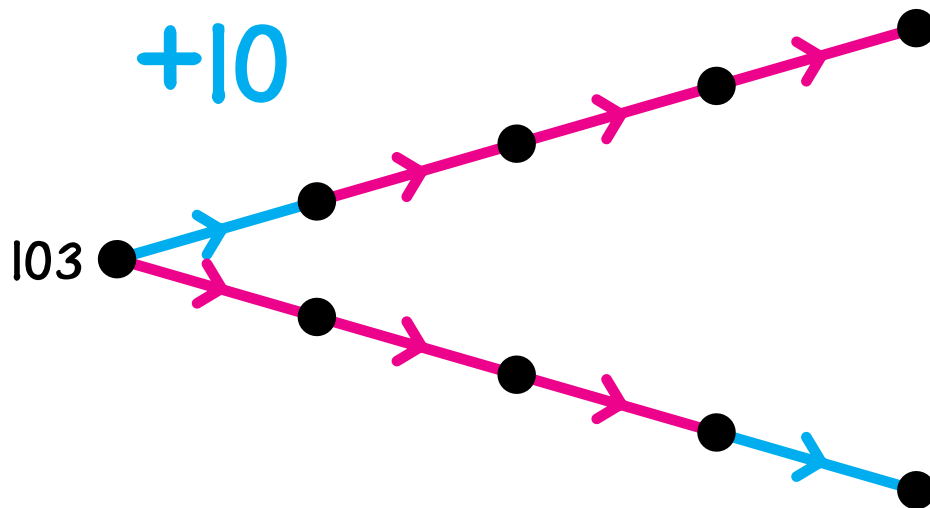
Name \_\_\_\_\_

N20 \*\*\*

Label the dots.

2x

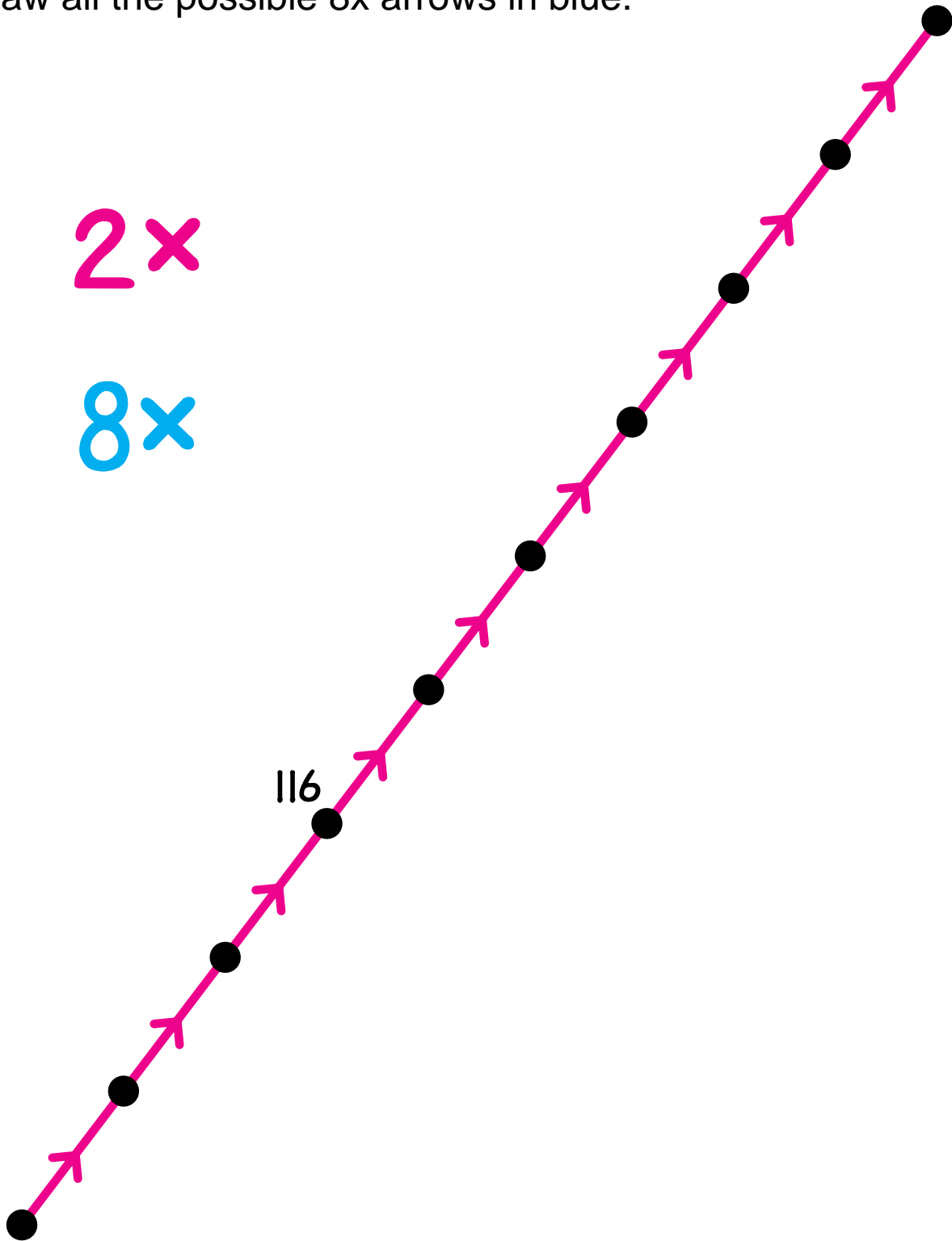
+10



Name \_\_\_\_\_

Label the dots.

Draw all the possible 8x arrows in blue.



Name \_\_\_\_\_

N22 \*

Label the dots.



-37

+46



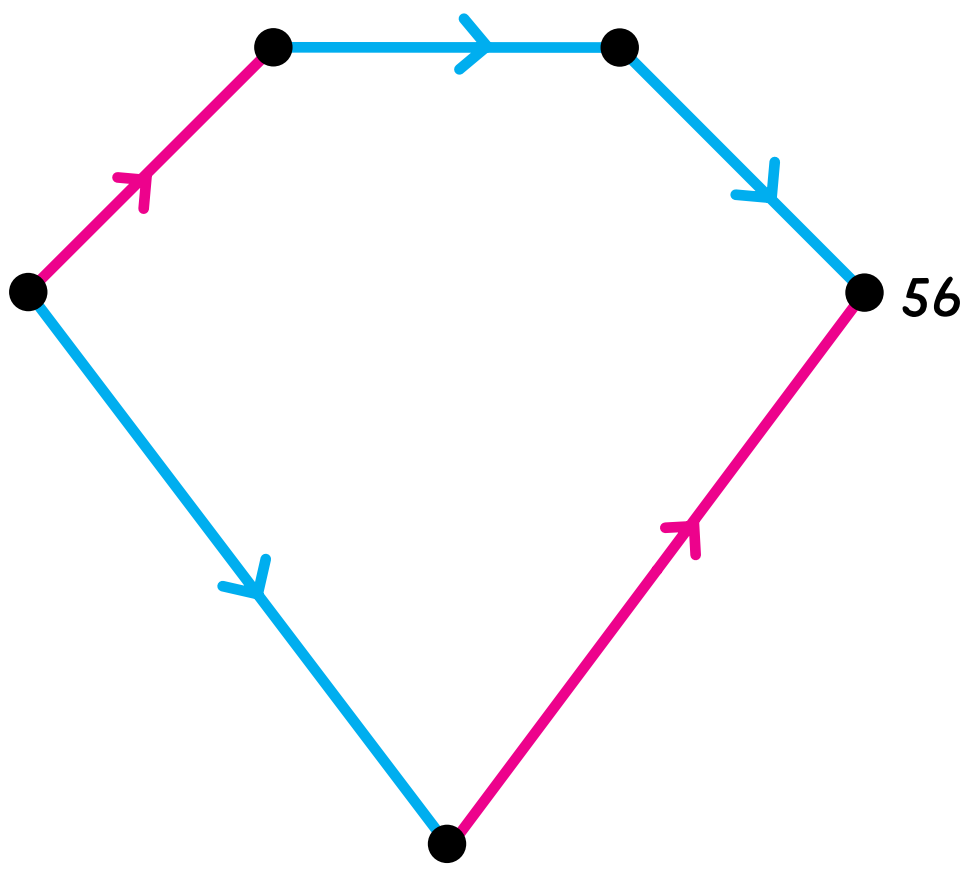
Name \_\_\_\_\_

N22 \*\*

Label the dots.

$\times 2$

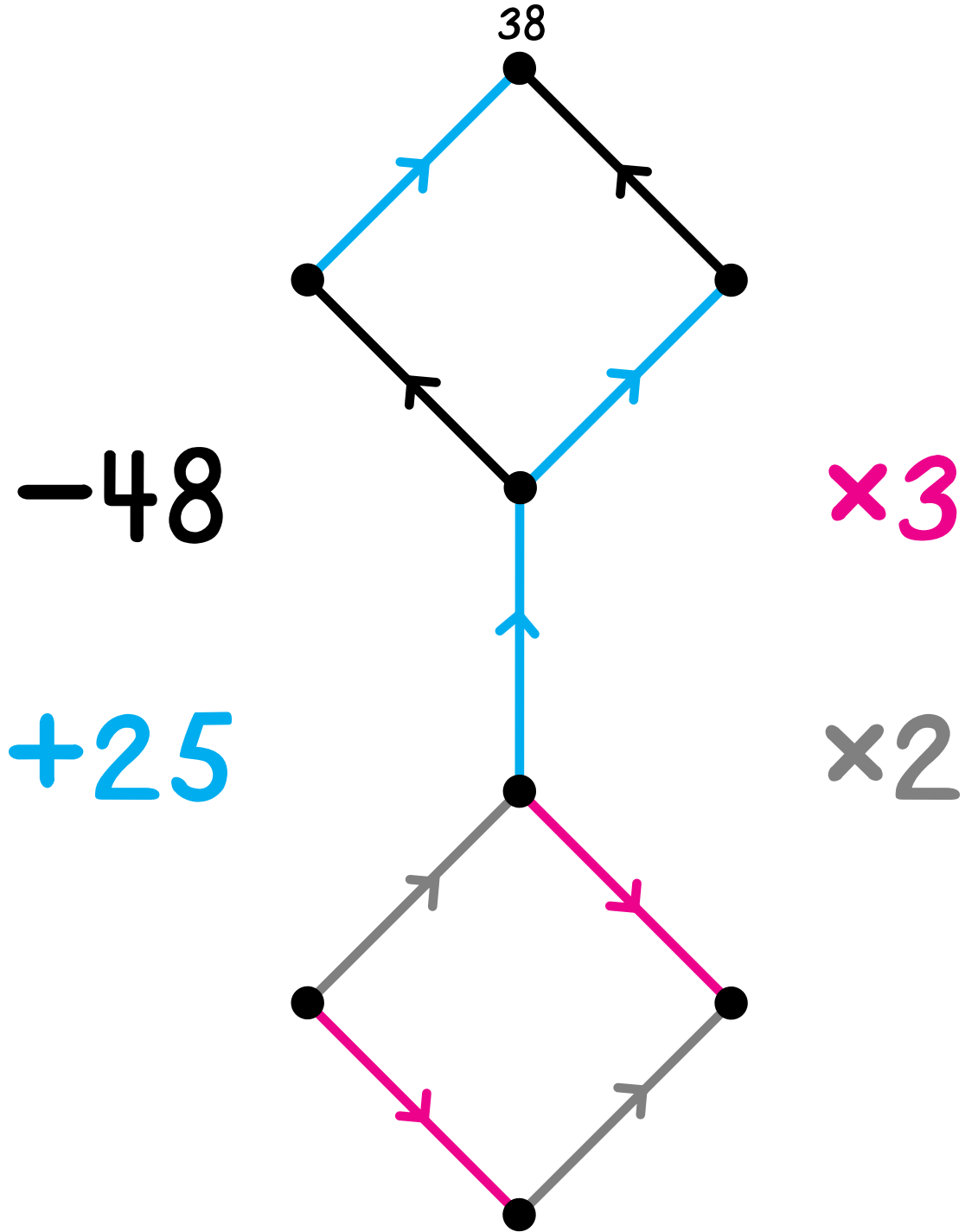
$-69$



Name \_\_\_\_\_

N22 \*\*\*

Label the dots.



Name \_\_\_\_\_

N22 \*\*\*\*

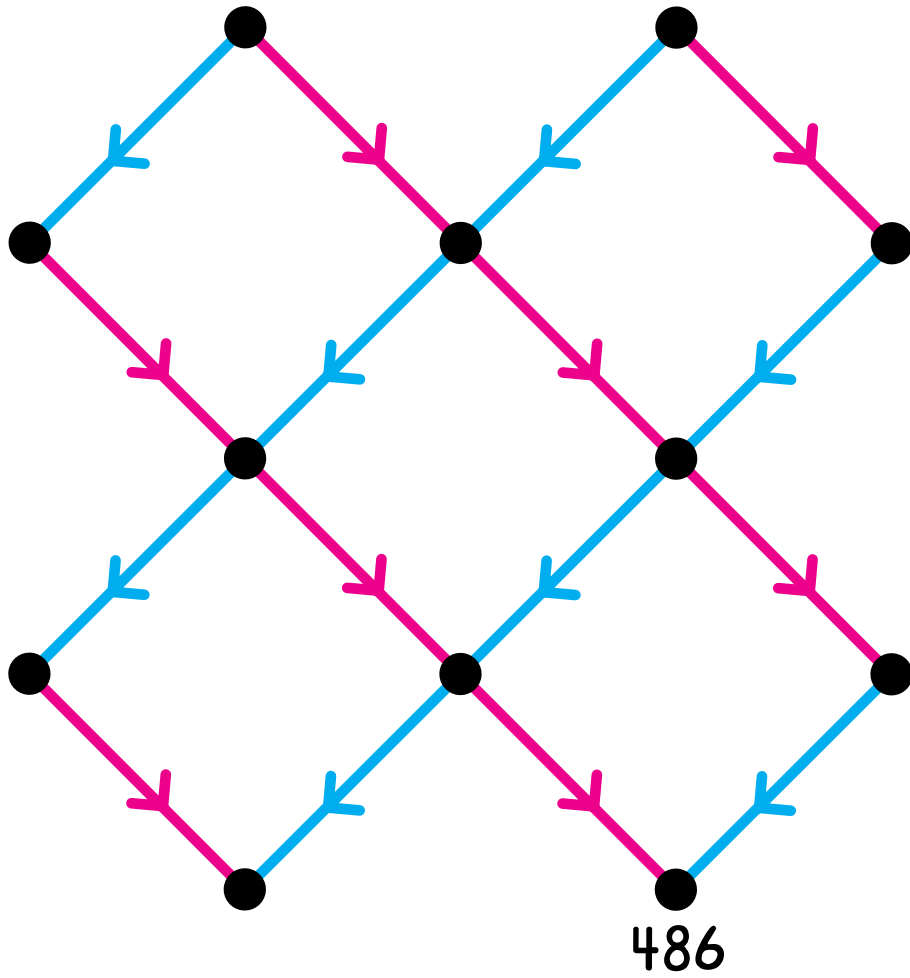
Label the dots.

Draw seven missing x6 arrows in gray.

x3

x6

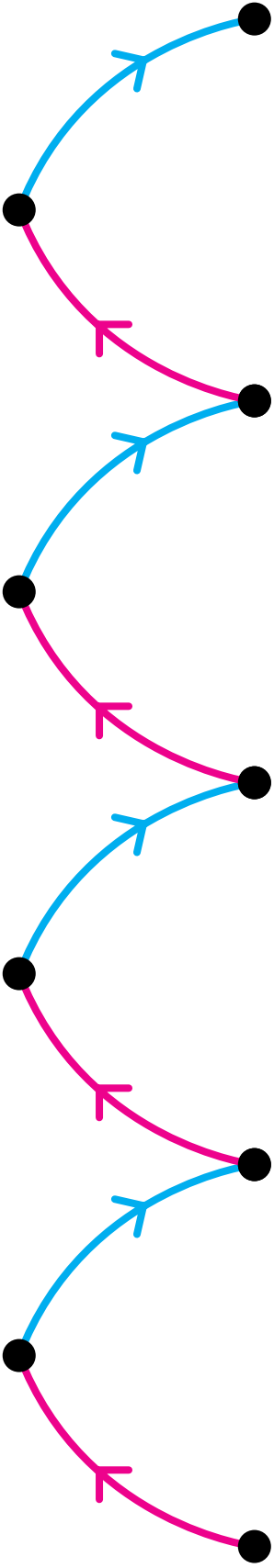
x2



Name \_\_\_\_\_

N24

5x  
 $\frac{1}{2}x$   
10x





Name \_\_\_\_\_

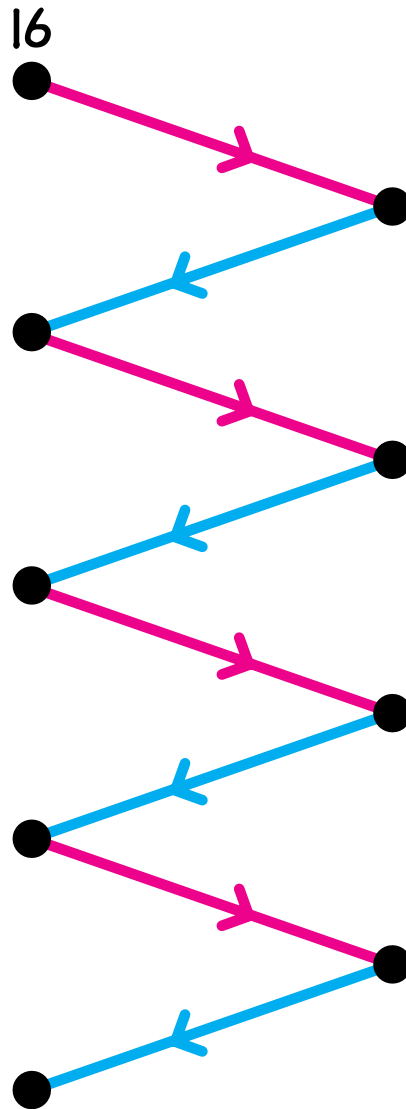
Label the dots.

Draw all the possible 5x arrows in gray.

10x

$\frac{1}{2}x$

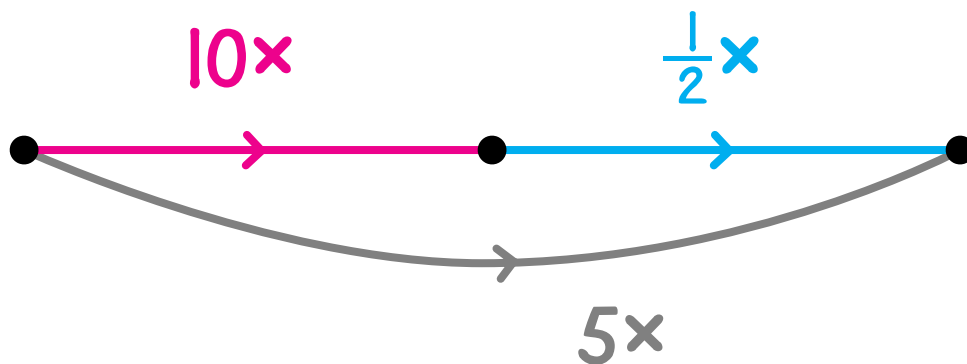
5x



You should find seven 5x arrows.

Name \_\_\_\_\_

Complete this table.



Starting Number	10x	5x
25		
82		
41		
63		
85		
94		

Name \_\_\_\_\_

N24 \*\*\*

Draw all the possible  $10x$ ,  $5x$ , and  $\frac{1}{2}x$  arrows.

$10x$

$5x$

$\frac{1}{2}x$

3

15

30

150

9,375

75

18,750

3,750

750

1,875

375

Name \_\_\_\_\_

N26 \*

Build an arrow road between each pair of numbers. Try to use less than ten arrows in each road.

10×

+ |

- |

6 ●

●  
73

5 ●

●  
36

Name \_\_\_\_\_

N26 \*\*

Build an arrow road between each pair of numbers. Use less than ten arrows in each road.

10x

+1

-1

103 ●

●  
9

---

108 ●

●  
12

Name \_\_\_\_\_

N26 \*\*\*

Build an arrow road between each pair of numbers. Use less than ten arrows in each road.

10×

+

-

610 ●

●  
3



670 ●

●  
4

Name \_\_\_\_\_

Build an arrow road between each pair of numbers. Use less than ten arrows in each road.

10×

+

-

11  
●

●  
1,021

13  
●

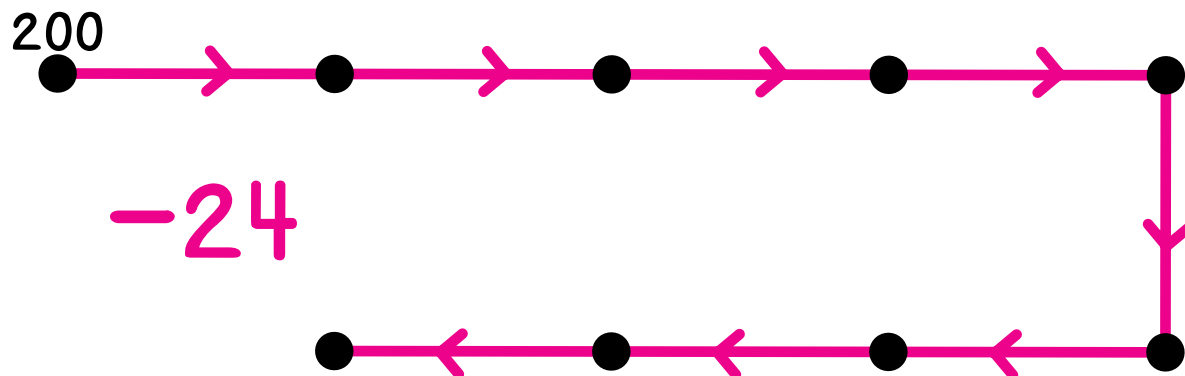
●  
989

Name \_\_\_\_\_

N32 \*

Label the dots in the pictures to help solve these problems.

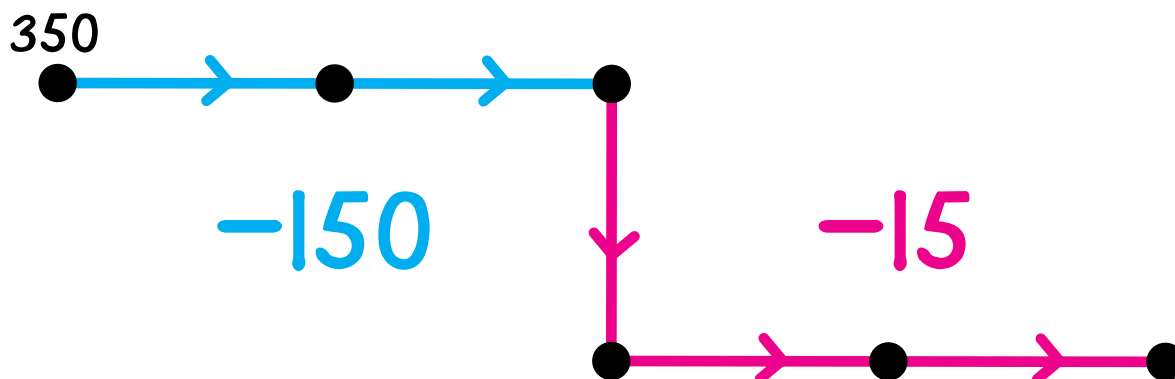
Put cookies in packages of 24. How many packages will 200 cookies fill? \_\_\_\_\_ How many cookies left over? \_\_\_\_\_



Complete.

$$24 \overline{)200}$$

Put erasers in boxes of 15. How many boxes will 350 erasers fill? \_\_\_\_\_ How many erasers left over? \_\_\_\_\_



Complete.

$$15 \overline{)350}$$



Name \_\_\_\_\_

N32 \*\*

Draw pictures to show how you solve these problems.

Put bottles in cartons of 16.

How many cartons will 350 bottles fill? \_\_\_\_\_

How many bottles left over? \_\_\_\_\_

Complete.

$$16 \overline{)350}$$

---

Put cards in packages of 36.

How many packages will 500 cards fill? \_\_\_\_\_

How many cards left over? \_\_\_\_\_

Complete.

$$36 \overline{)500}$$

Name \_\_\_\_\_

N34 \*

Build a road between each pair of numbers.

Try to use less than ten cords to build each road.

$2 \times$  or  $\frac{1}{2} \times$

---

$+$  or  $-$

---

7  
●

●  
30

6  
●

●  
50

Name \_\_\_\_\_

N34 \*\*

Build a road between each pair of numbers.  
Use less than ten cords to build each road.

2x or 1/2x

+ | or - |

40 ●

●  
14

---

20 ●

●  
30

Name \_\_\_\_\_

N34 \*\*\*

Build a road between each pair of numbers.

Use as few cords as possible to build each road.

$2 \times$  or  $\frac{1}{2} \times$

$+|$  or  $-|$

48 ●

●  
60

100 ●

●  
88

Name \_\_\_\_\_

N34 \*\*\*\*

Build a road between each pair of numbers.

Use as few cords as possible to build each road.

$2 \times$  or  $\frac{1}{2} \times$

---

$+ |$  or  $- |$

---

44 ●

●  
130

---

501 ●

●  
55

Name \_\_\_\_\_

L2

\*

Match names for the same number.  
One is done for you.

$$(2 \times 5) + 10 \quad 25$$

$$(2 \times 10) + 5 \quad 70$$

$$(5 \times 10) + 2 \quad 20$$

$$2 \times (5 + 10) \quad 60$$

$$5 \times (10 + 2) \quad 30$$

$$10 \times (5 + 2) \quad 52$$

Name \_\_\_\_\_

L2

\*\*

Elf is a secret number.

Clue 1

A name for Elf can be written using all these symbols, each symbol exactly once.

( + × )  
2 1 4

Clue 2

A name for Elf can be written using all these symbols, each symbol exactly once.

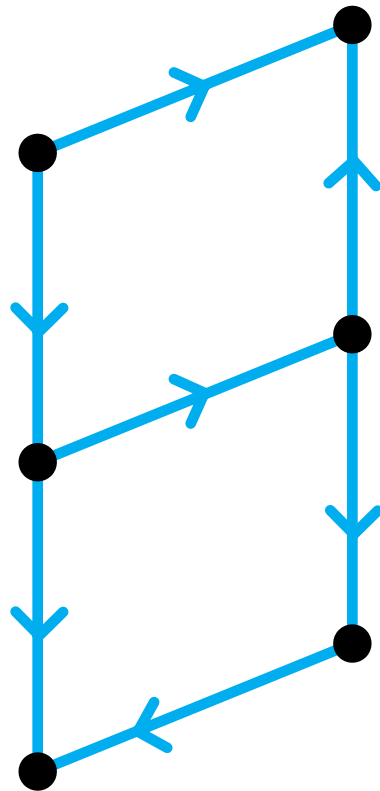
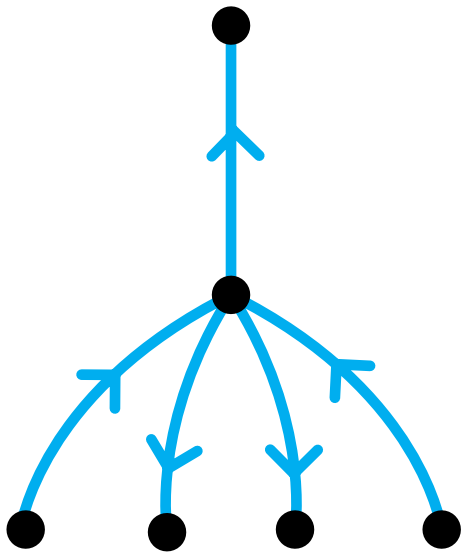
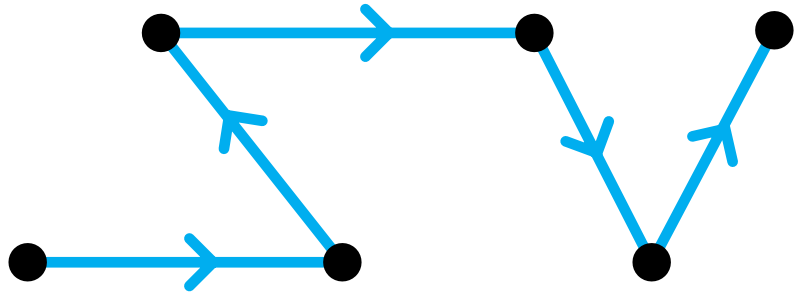
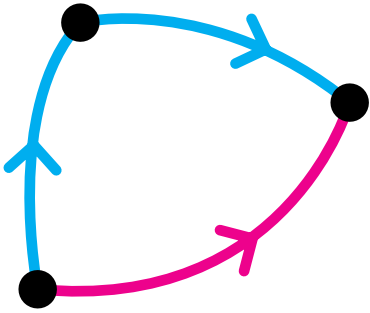
2 ( ) 6  
+ 3 ×

Who is Elf? \_\_\_\_\_

Name \_\_\_\_\_

L4 \*

Draw all the missing red arrows.

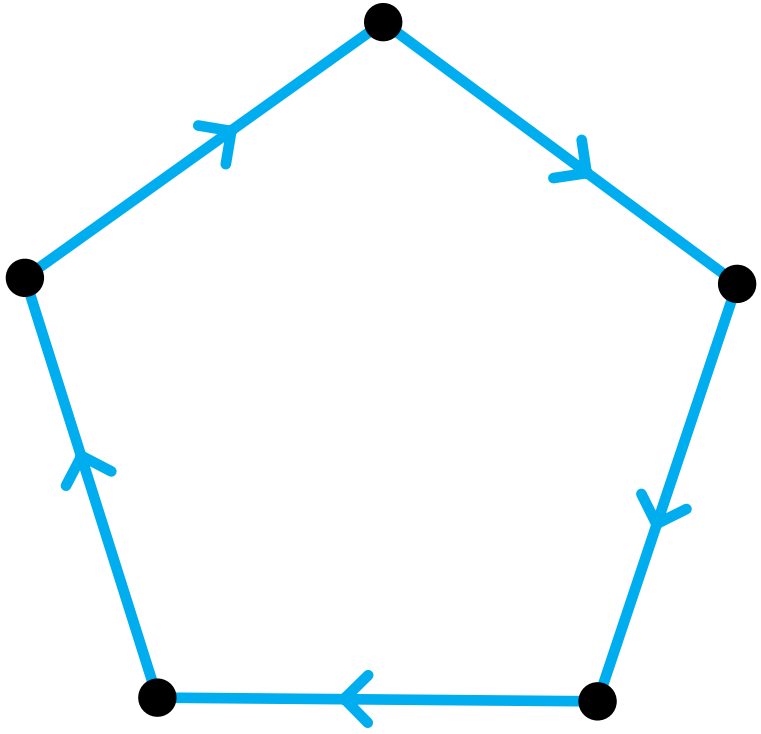
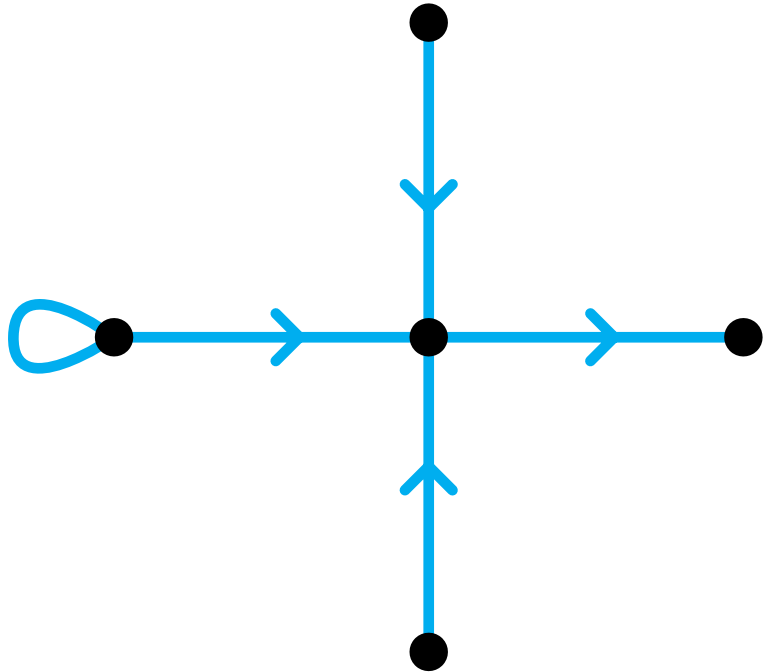
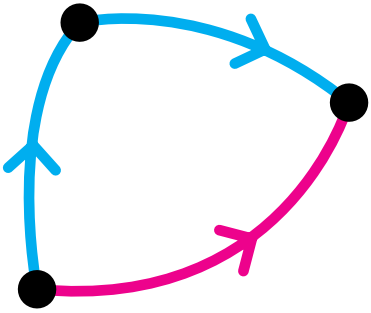




Name \_\_\_\_\_

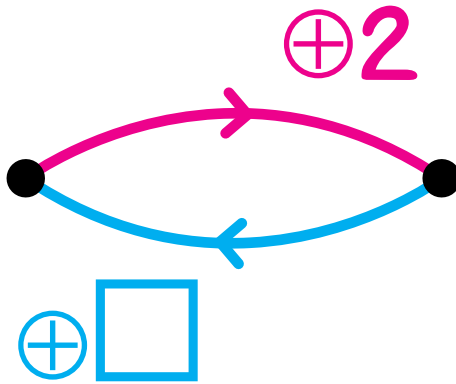
L4    \*\*

Draw all the missing red arrows and loops.



Name \_\_\_\_\_

Fill in the chart with ways to label the dots.

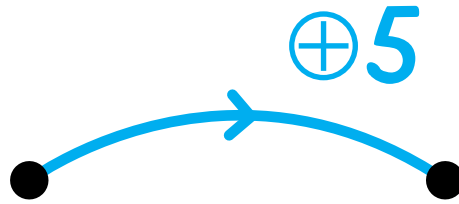


5	
9	1
	0

What could the blue arrow be for? Fill in the blue box.

Name \_\_\_\_\_

Fill in the chart with ways to label the dots.



0	
7	2
	1

Name \_\_\_\_\_

L7
----

<b>+</b>	<b>4</b>	<b>7</b>	<b>13</b>
<b>5</b>			
<b>10</b>			

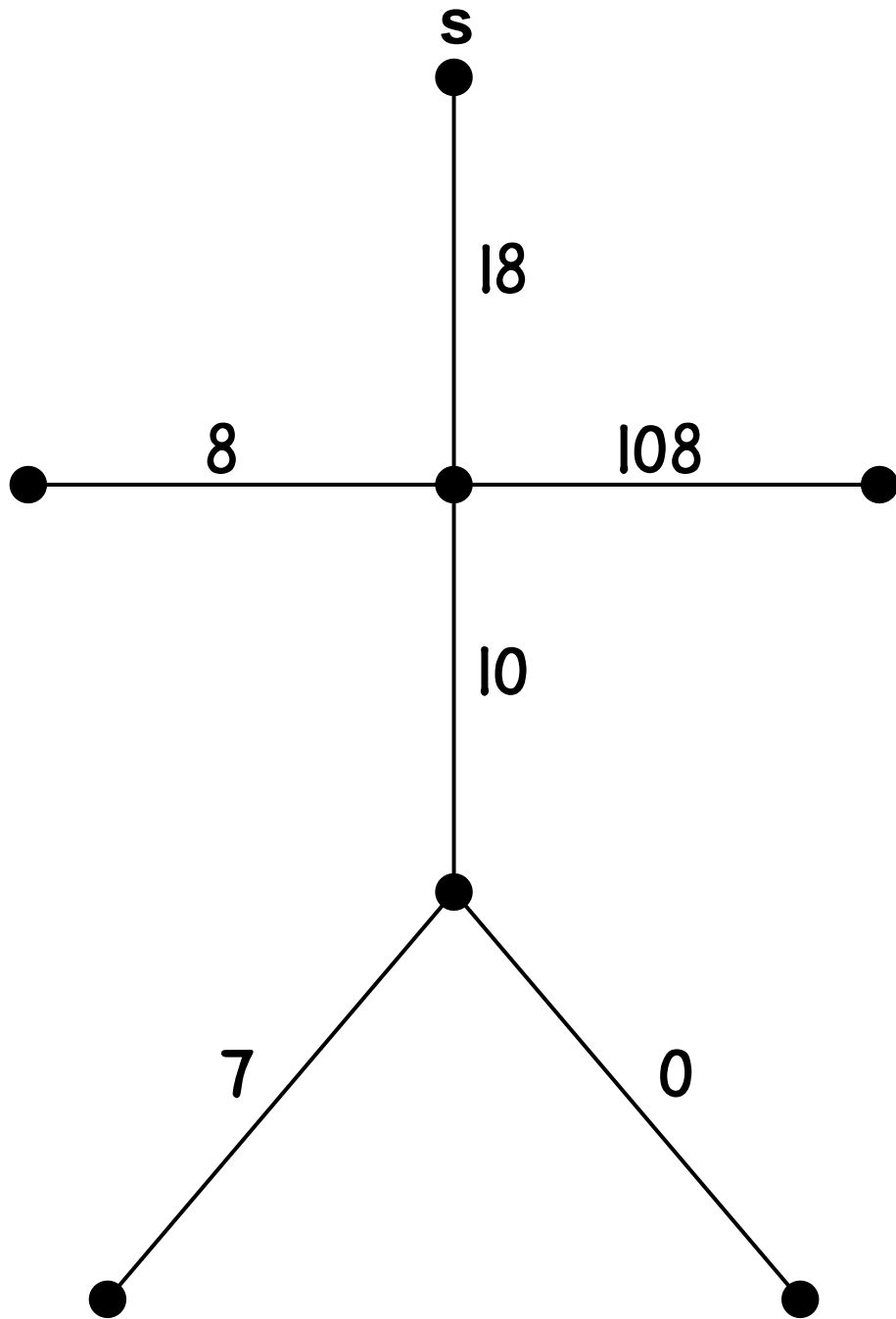
<b>-</b>	<b>4</b>	<b>7</b>	<b>13</b>
<b>5</b>			
<b>10</b>			

<b>×</b>	<b>4</b>	<b>7</b>	<b>13</b>
<b>5</b>			
<b>10</b>			

Name \_\_\_\_\_

L8 \*

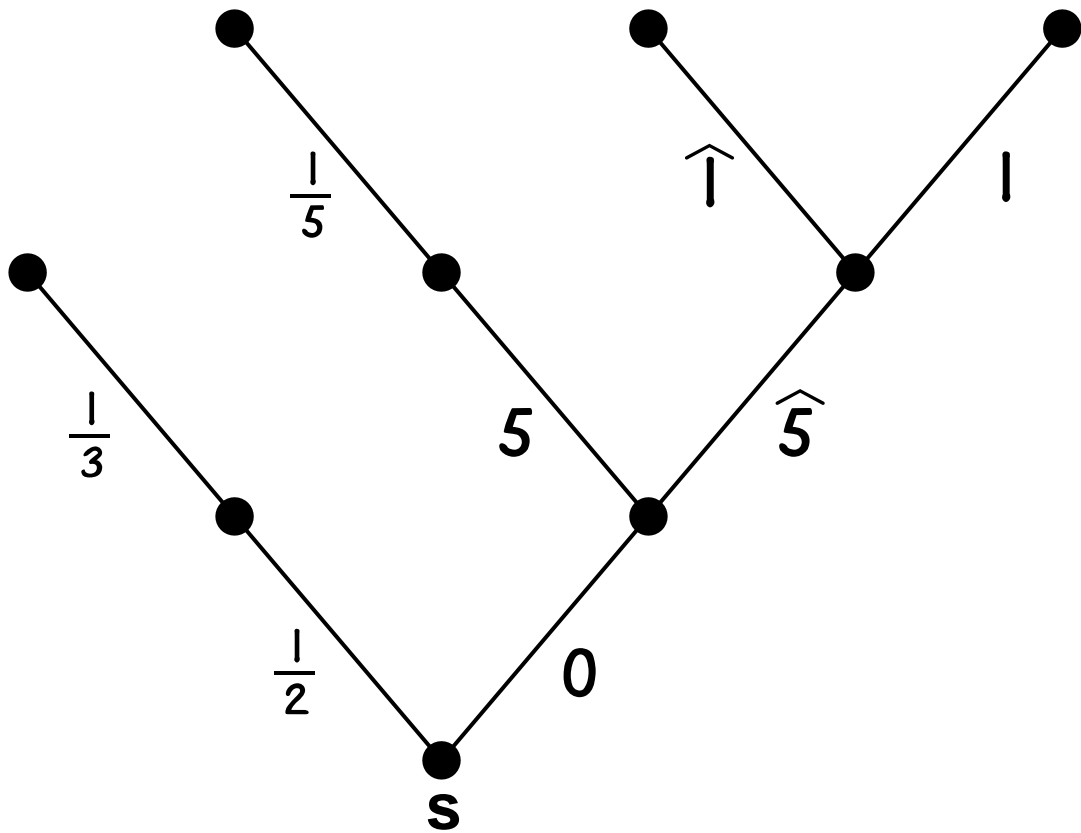
Play The Red Arrow Game with this tree. Start at **S**.



Name \_\_\_\_\_

L8    \*\*

Play The Red Arrow Game with this tree. Start at **S**.



Name \_\_\_\_\_

L11 \*

Complete these number sentences about multiplication with ten number friends.

$1 \otimes 6 = \square$

$9 \otimes 1 = \square$

$2 \otimes 6 = \square$

$2 \otimes 8 = \square$

$3 \otimes 6 = \square$

$3 \otimes 8 = \square$

$4 \otimes 6 = \square$

$5 \otimes 7 = \square$

$5 \otimes 6 = \square$

$4 \otimes 9 = \square$

$6 \otimes 6 = \square$

$7 \otimes 3 = \square$

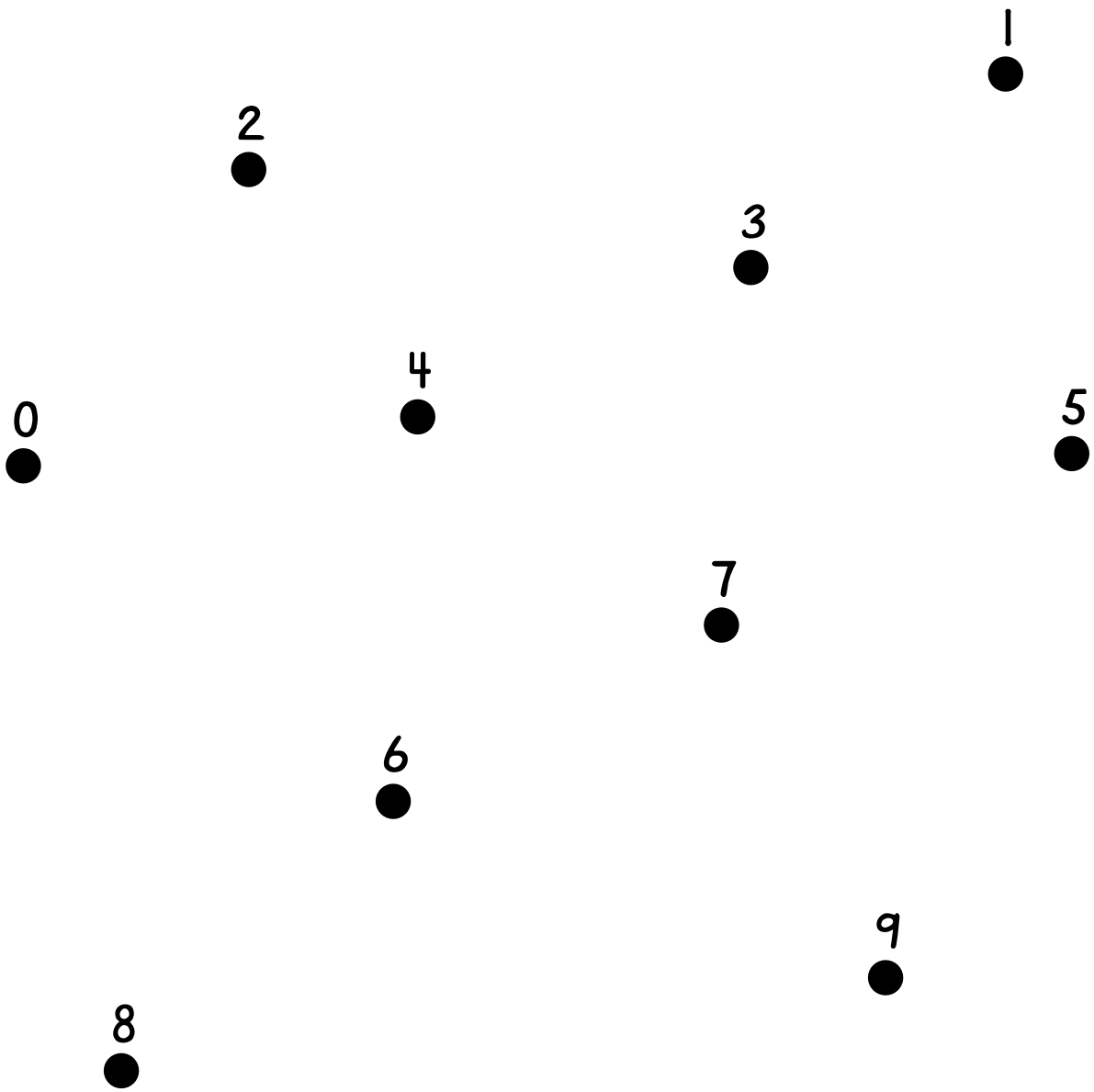




Name \_\_\_\_\_

All the ten number friends are here. Draw blue arrows in their  $\otimes 5$  picture.

$\otimes 5$

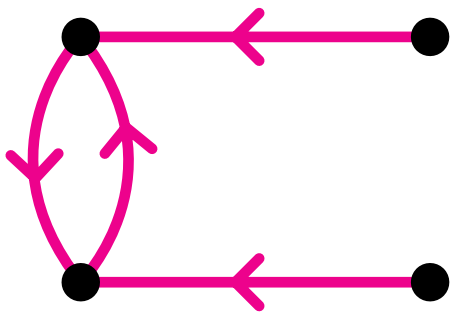
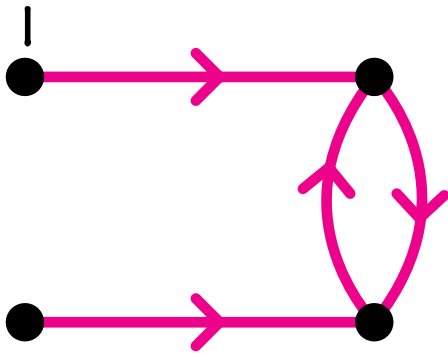


Name \_\_\_\_\_

L12 \*\*

Label the dots to put the ten number friends in this  $\otimes 4$  picture.

$\otimes 4$

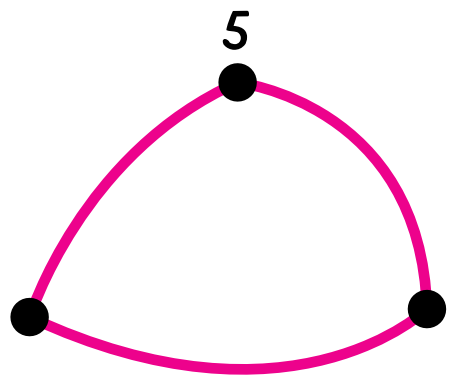
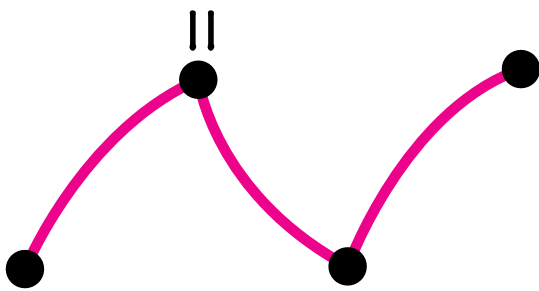
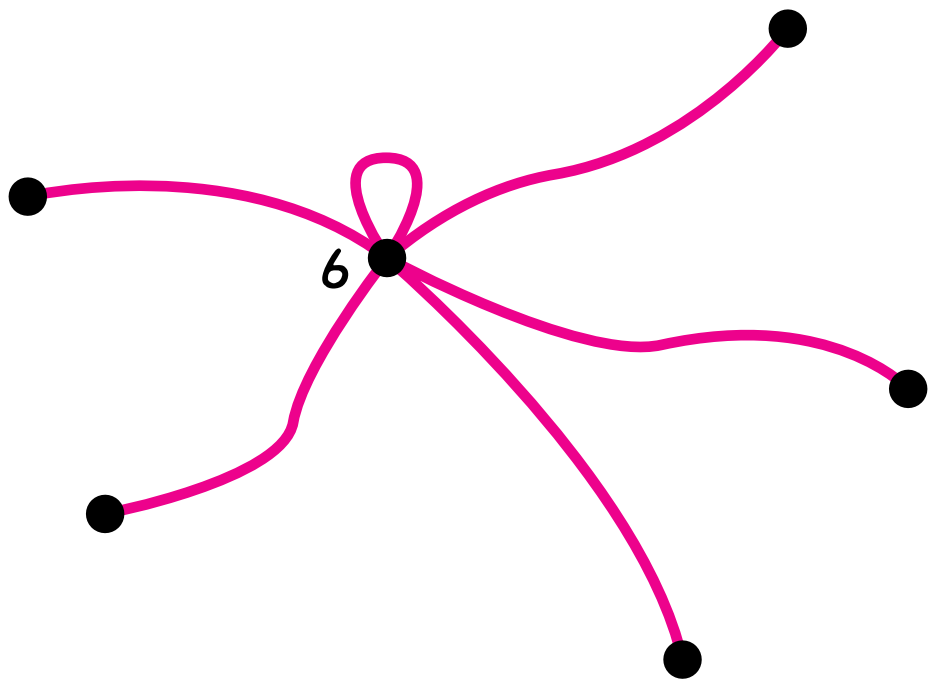


Name \_\_\_\_\_

L14 \*

Two numbers may talk to each other  
if and only if  
one number is a multiple of the other.

Label the dots. Many solutions are possible.

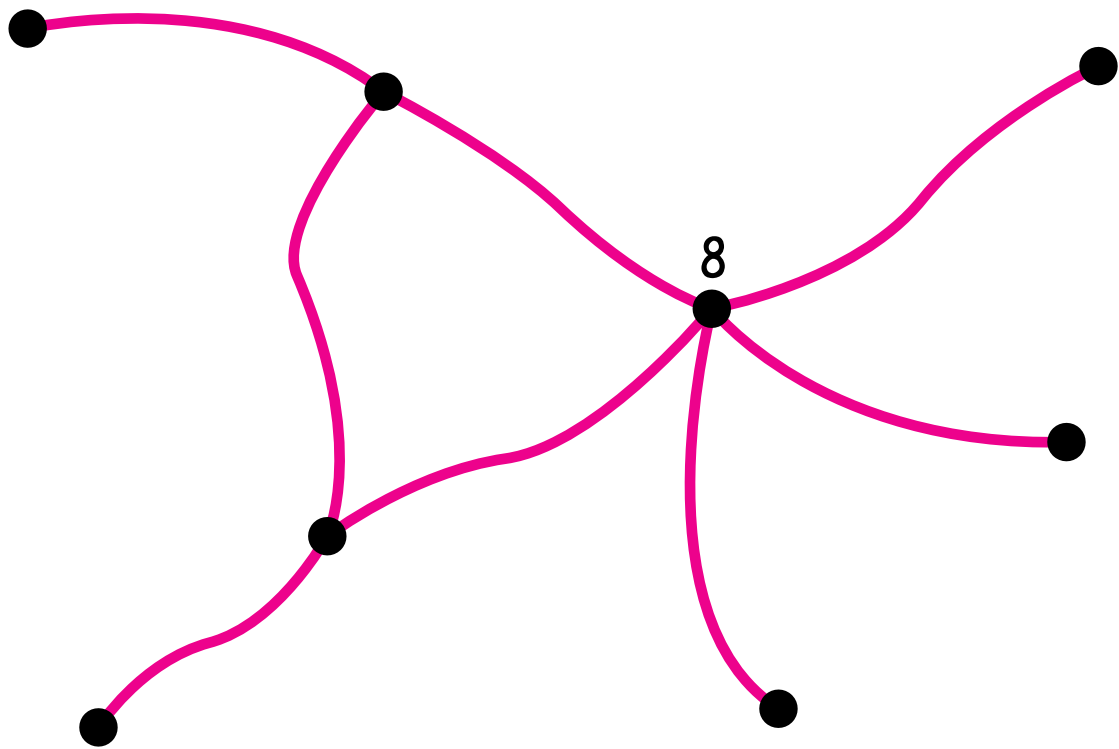


Name \_\_\_\_\_

L14 \*\*

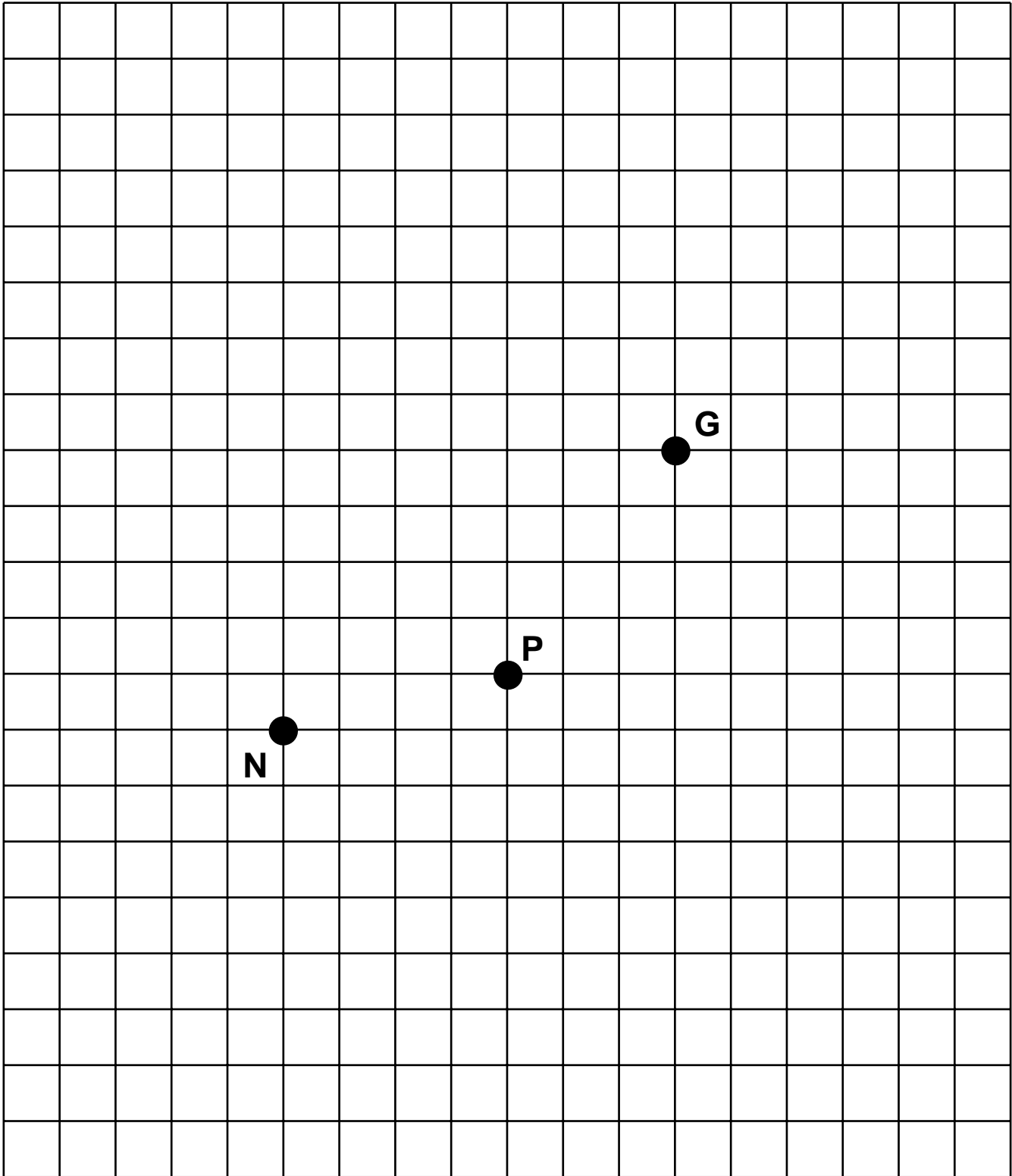
Two numbers may talk to each other  
if and only if  
one number is a multiple of the other.

Label the dots. Many solutions are possible.



Name \_\_\_\_\_

G1

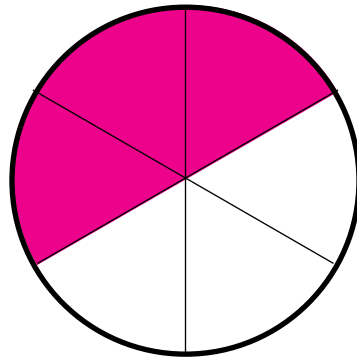


Name \_\_\_\_\_

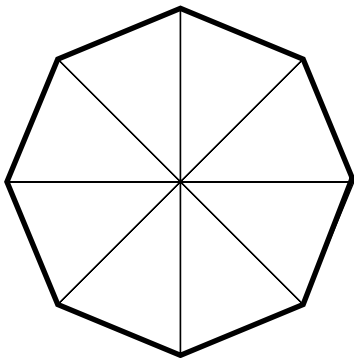
G2 \* \_\_\_\_\_

Color exactly one-half of each shape. Use the picture to write another name for  $\frac{1}{2}$ .

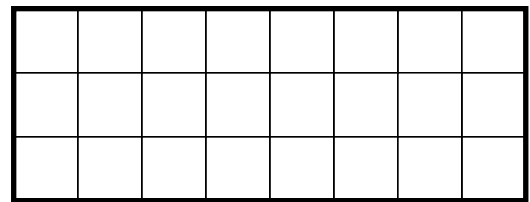
Example:



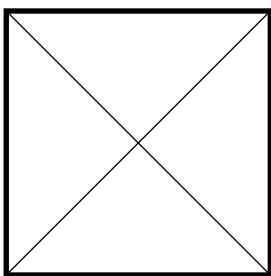
$$\frac{1}{2} = \frac{3}{6}$$



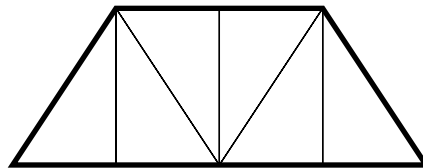
$$\frac{1}{2} = \text{---}$$



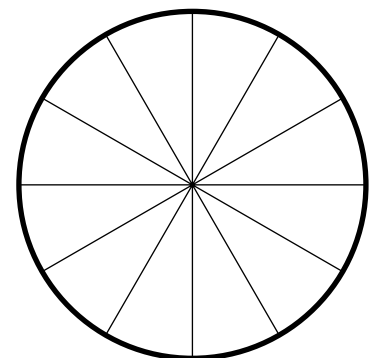
$$\frac{1}{2} = \text{---}$$



$$\frac{1}{2} = \text{---}$$



$$\frac{1}{2} = \text{---}$$

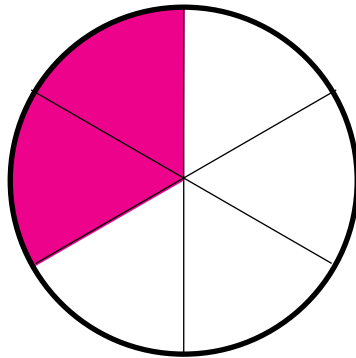


$$\frac{1}{2} = \text{---}$$

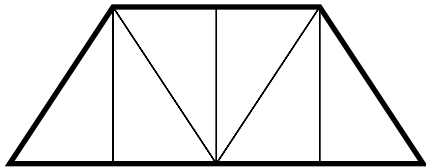
Name \_\_\_\_\_

Color exactly one-third of each shape. Use the picture to write another name for  $\frac{1}{3}$ .

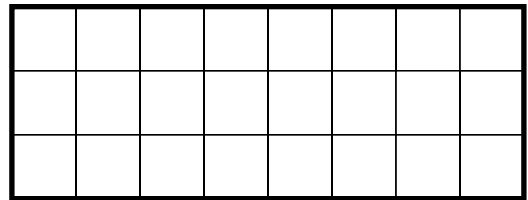
Example:



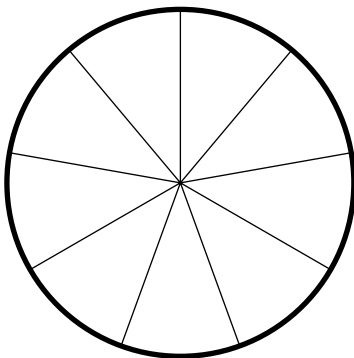
$$\frac{1}{3} = \frac{2}{6}$$



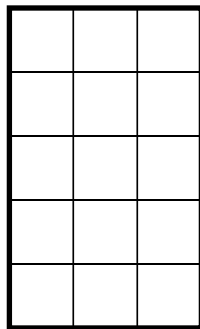
$$\frac{1}{3} = \text{---}$$



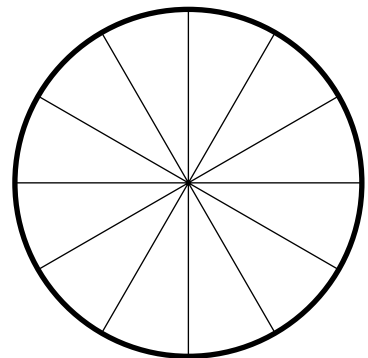
$$\frac{1}{3} = \text{---}$$



$$\frac{1}{3} = \text{---}$$



$$\frac{1}{3} = \text{---}$$



$$\frac{1}{3} = \text{---}$$

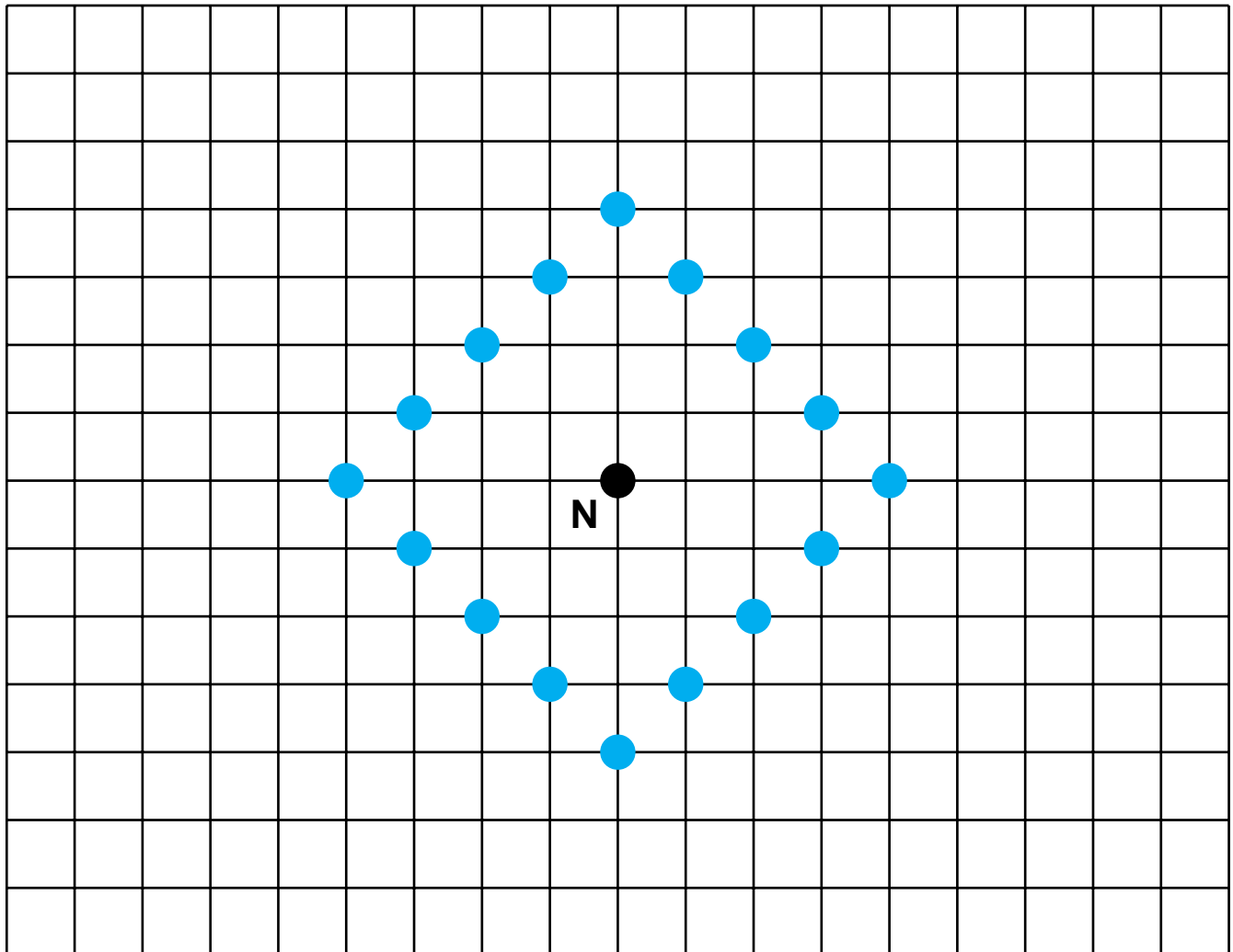
Name \_\_\_\_\_

G3

Complete the table.

Taxi-distance from N	How many places?
0 blocks	1
1 block	
2 blocks	
3 blocks	

Taxi-distance from N	How many places?
4 blocks	16
5 blocks	
6 blocks	
7 blocks	

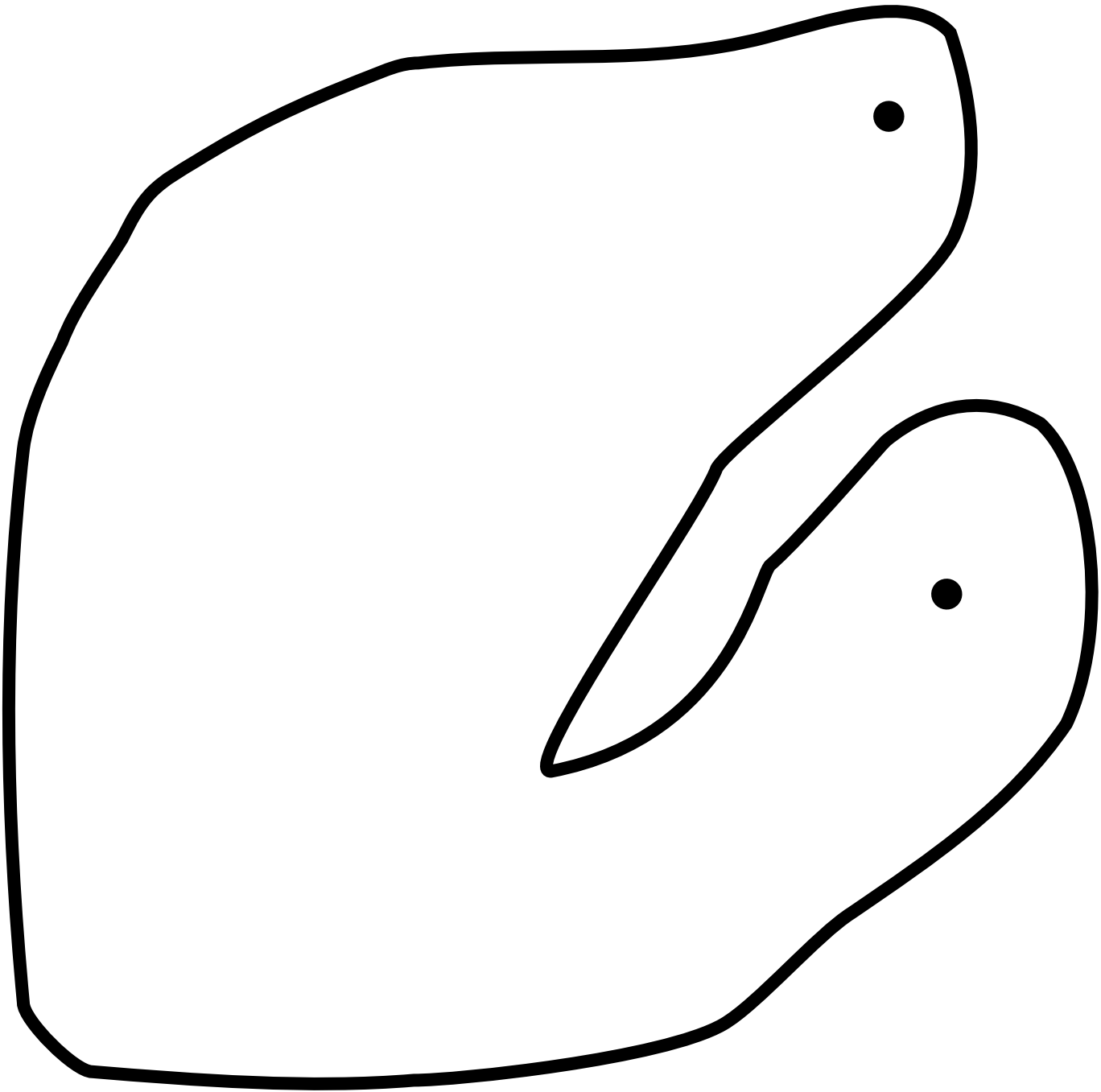




Name \_\_\_\_\_

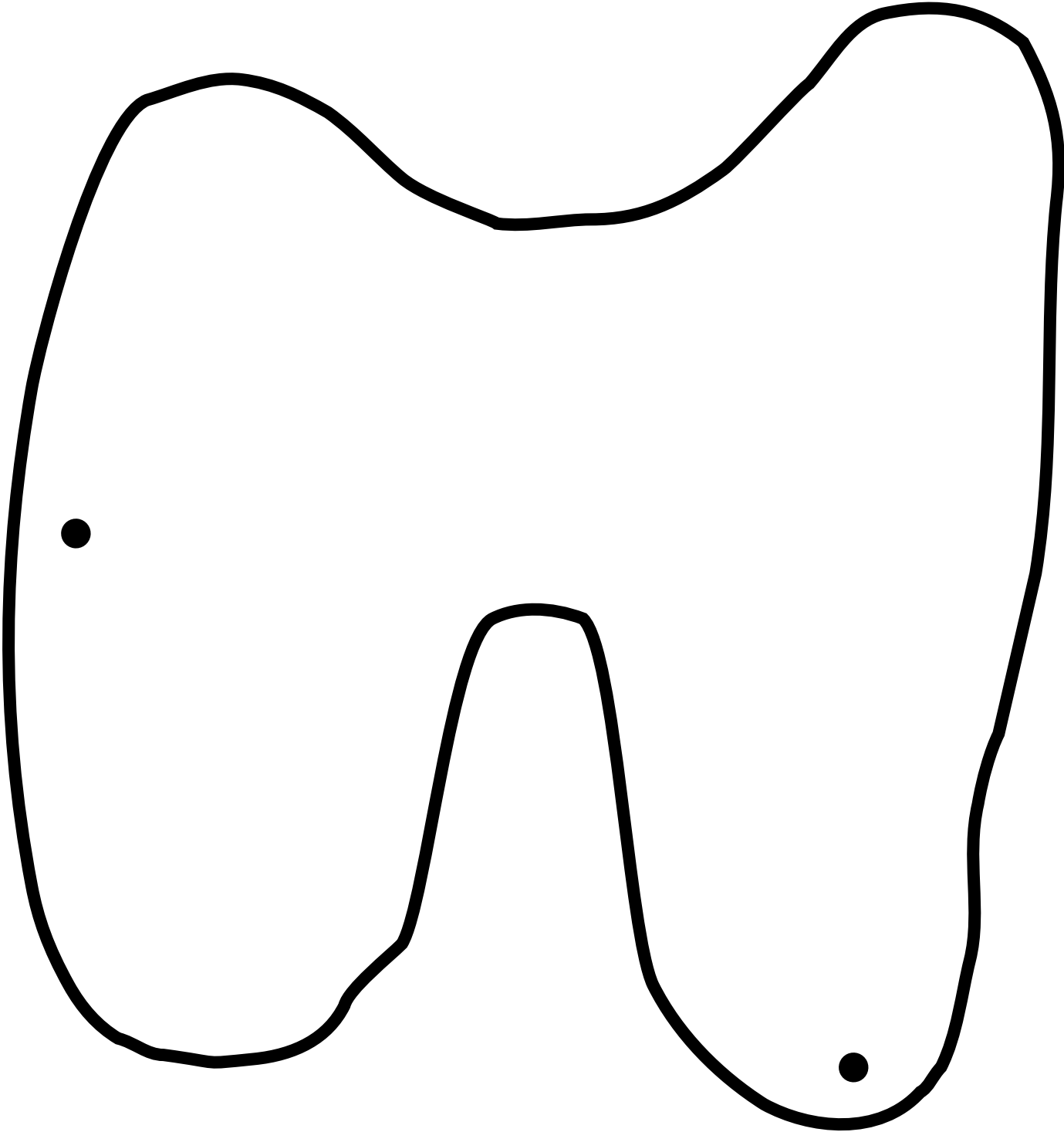
G4 \*

Connect the dots with a zigzag path, but do not go out of the yard. Try to make your path as short as possible.



Length of zigzag path = \_\_\_\_\_ cm = \_\_\_\_\_ dm.

Connect the dots with a zigzag path, but do not go out of the yard. Try to make your path as short as possible.

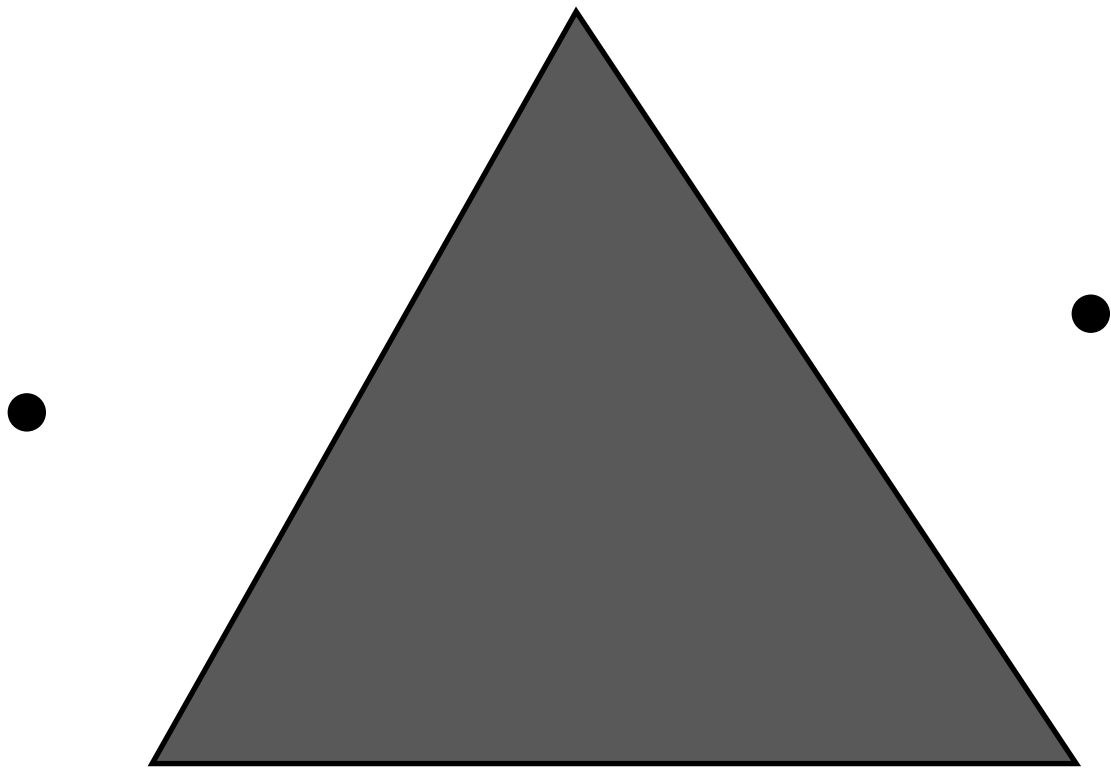


Length of zigzag path = \_\_\_\_\_ cm = \_\_\_\_\_ dm.

Name \_\_\_\_\_

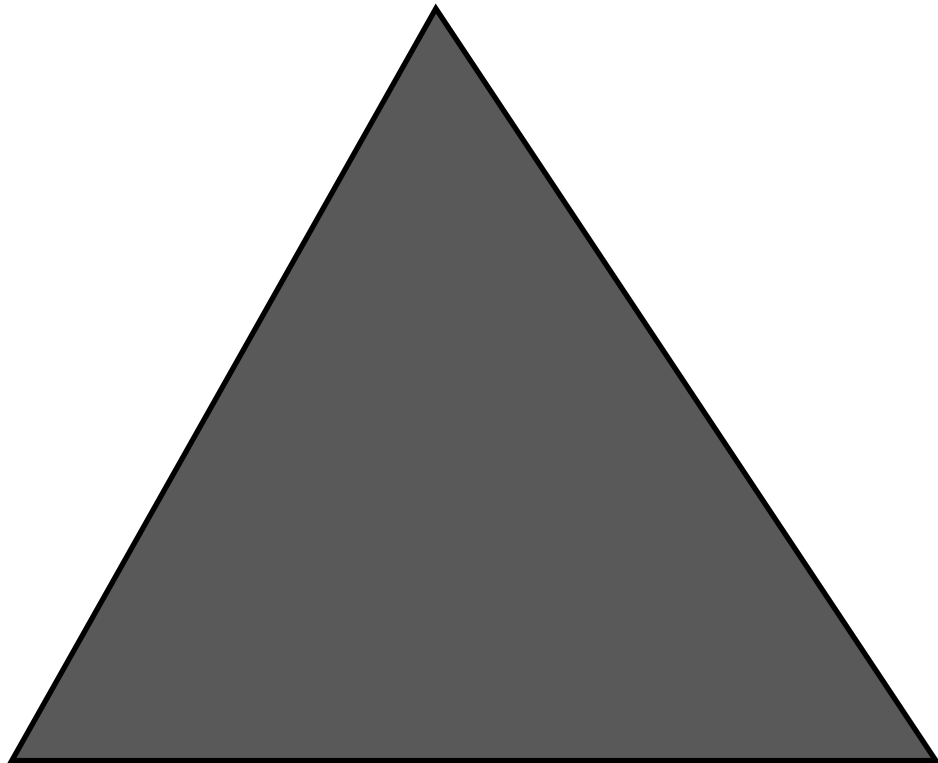
G4    \*\*

Connect the dots with a zigzag path, but do not go through the building. Try to draw a path shorter than 1.8 dm.



Length of zigzag path = \_\_\_\_\_ dm ( less than 1.8 dm)

Connect the dots with a zigzag path, but do not go through the building. Try to draw a path shorter than 2.3 dm.

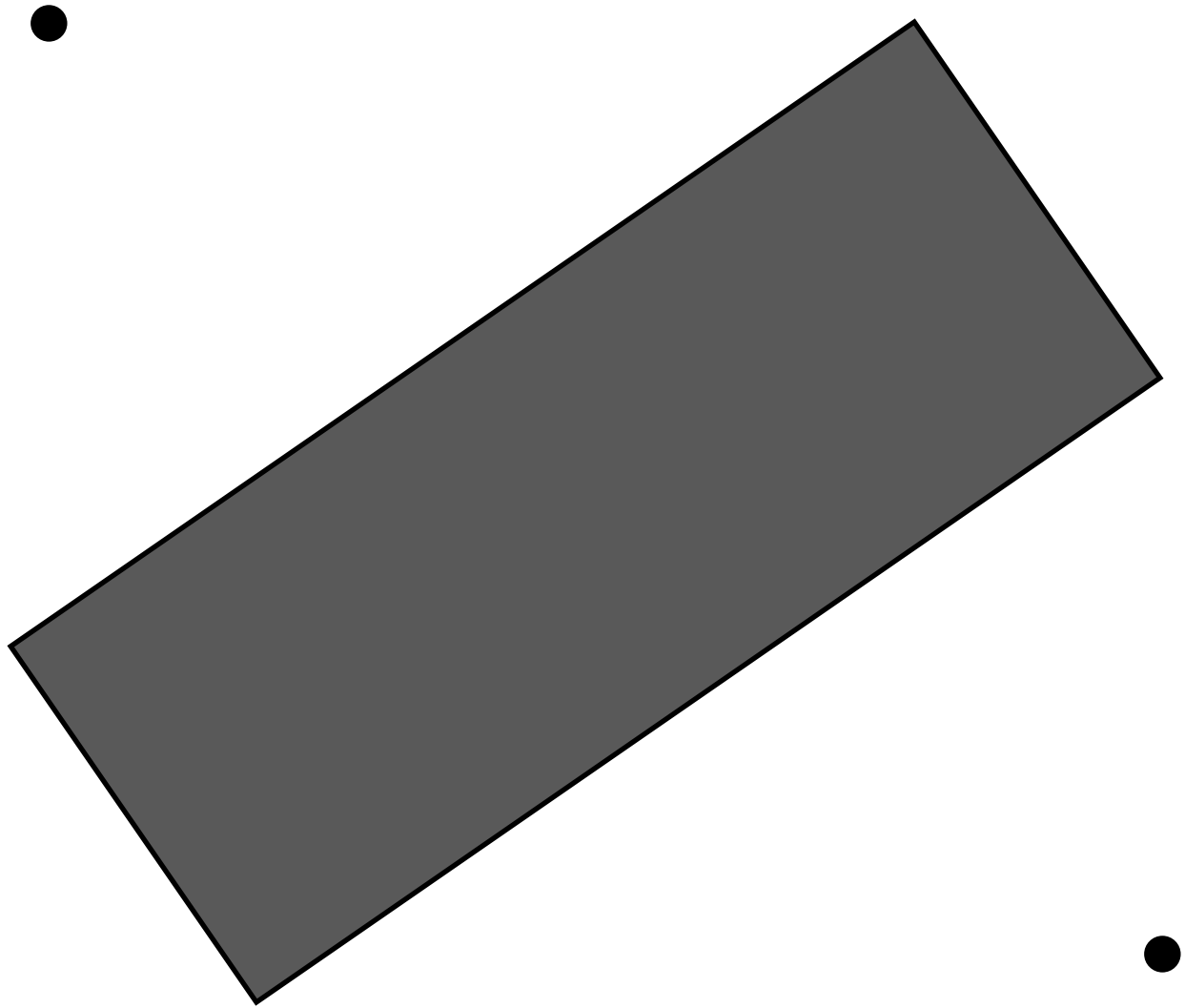


Length of zigzag path = \_\_\_\_\_ dm ( less than 2.3 dm)

Name \_\_\_\_\_

G4 \*\*\*

Connect the dots with a zigzag path, but do not go through the building. Try to draw a path shorter than 2.7 dm.



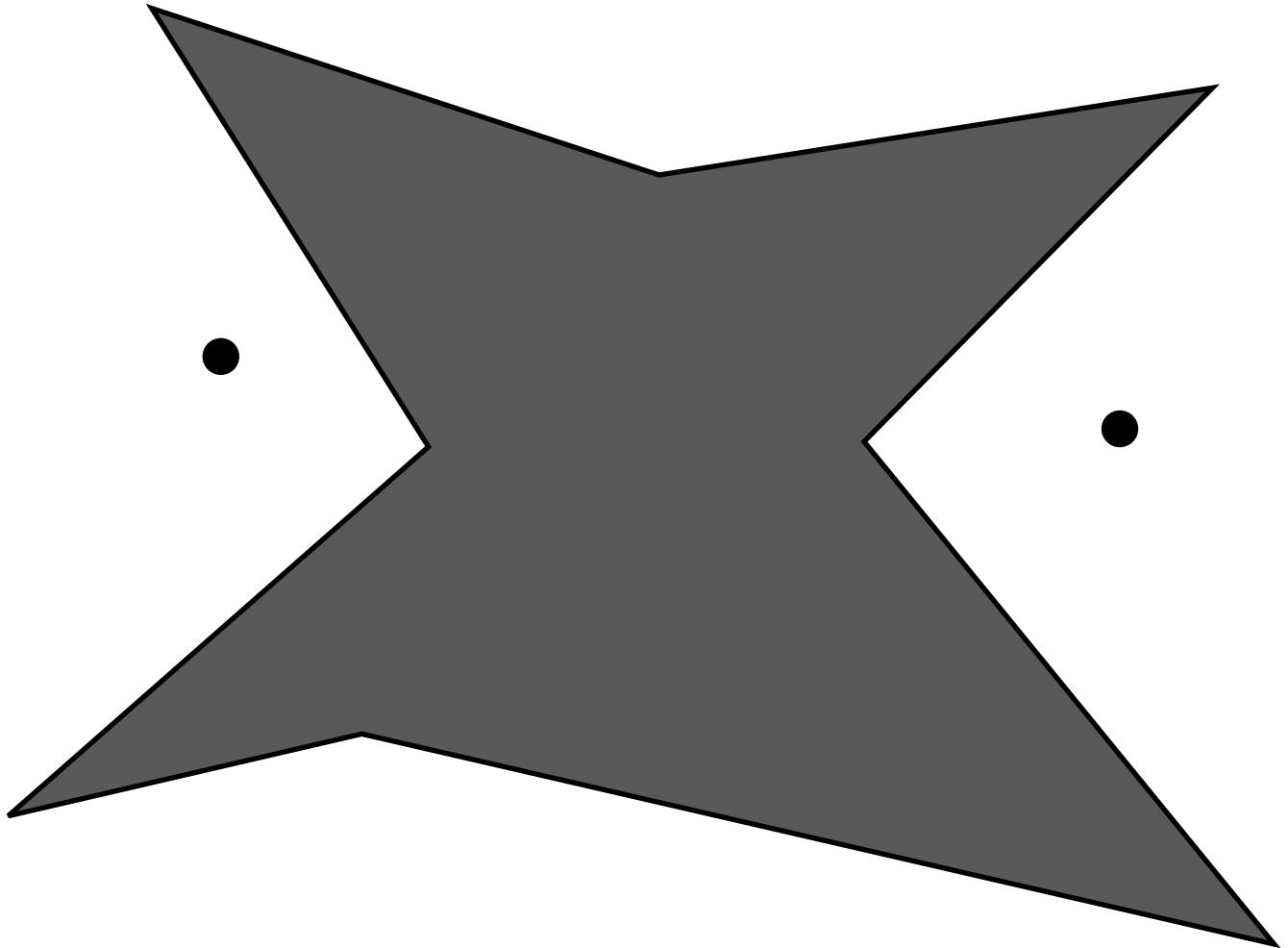
Length of zigzag path = \_\_\_\_\_ dm ( less than 2.7 dm)

Name \_\_\_\_\_

G4

\*\*\*\*

Connect the dots with a zigzag path, but do not go through the building. Try to draw a path shorter than 2.6 dm.

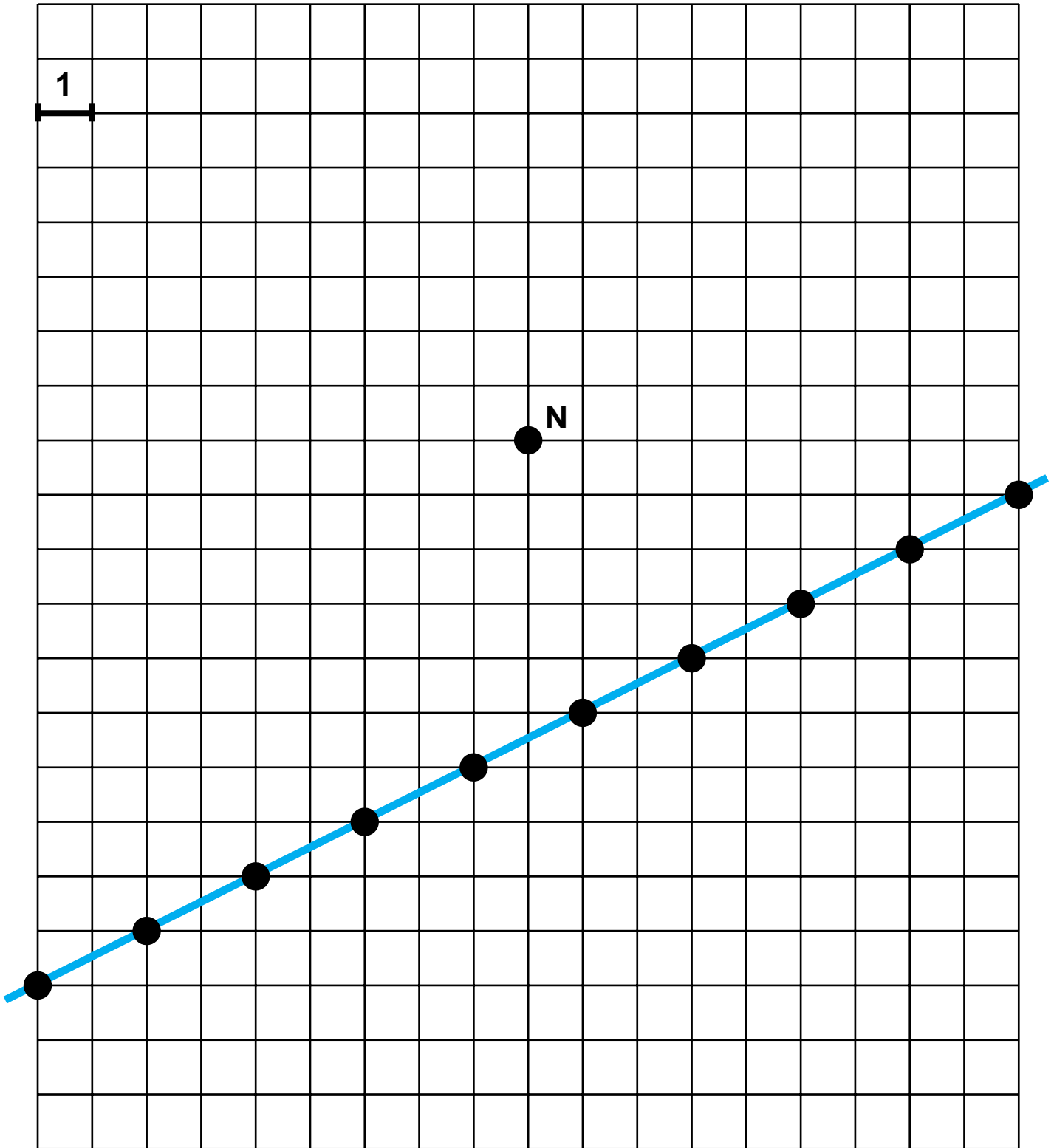


Length of zigzag path = \_\_\_\_\_ dm ( less than 2.6 dm)

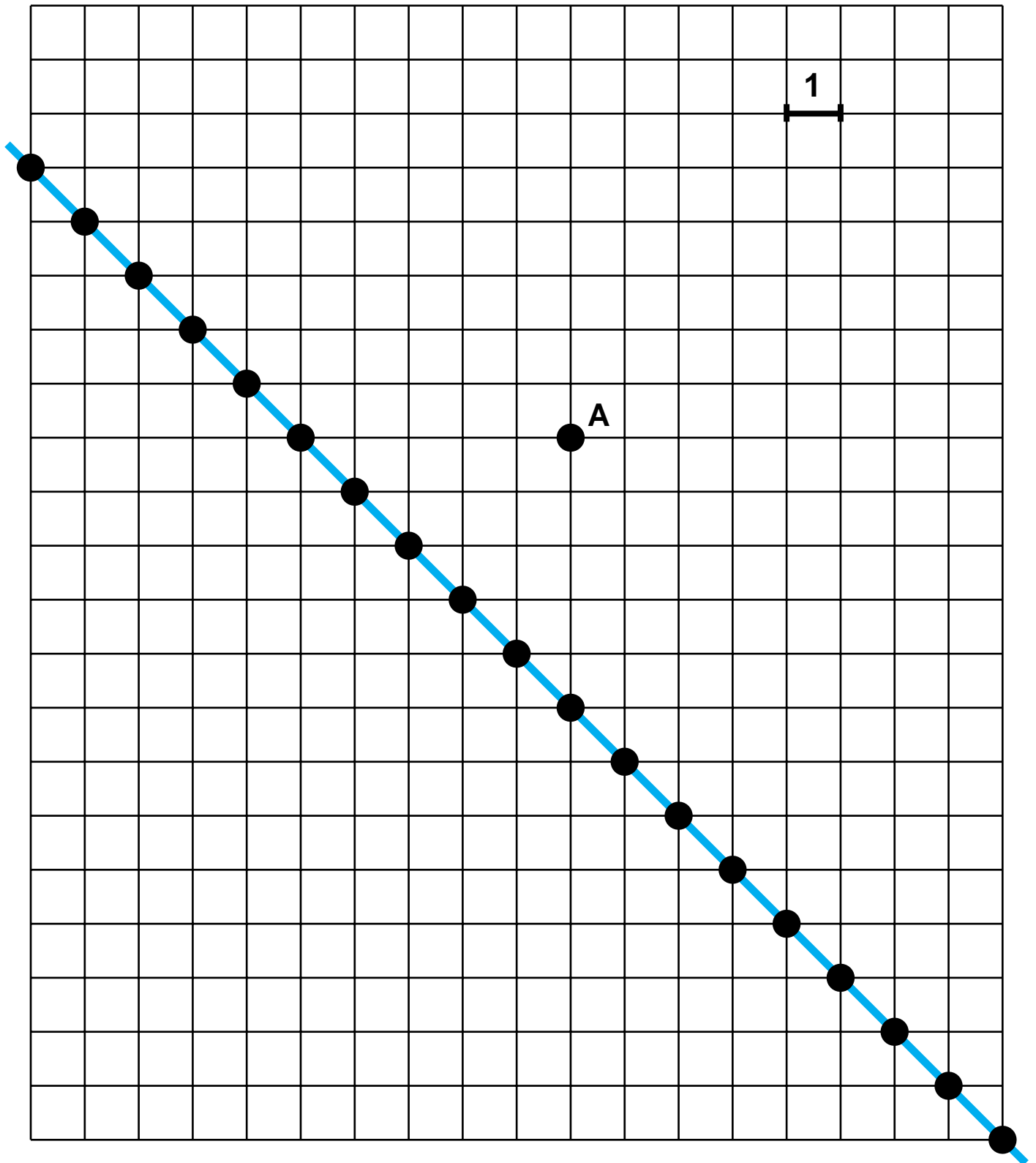
Name \_\_\_\_\_

G5

Find the taxi-distance from **N** to each station.



Find the taxi-distance from A to each station.

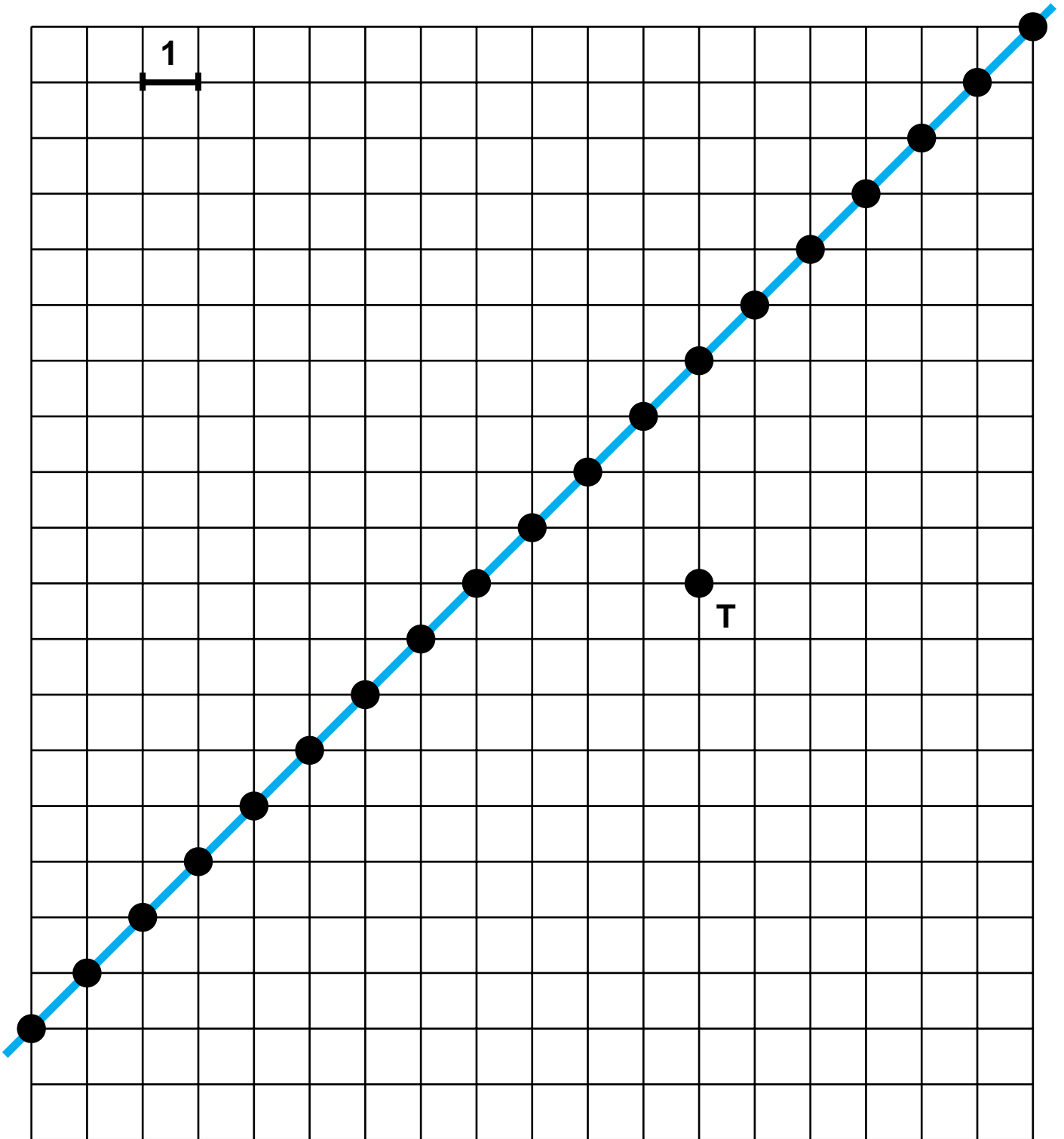




Name \_\_\_\_\_

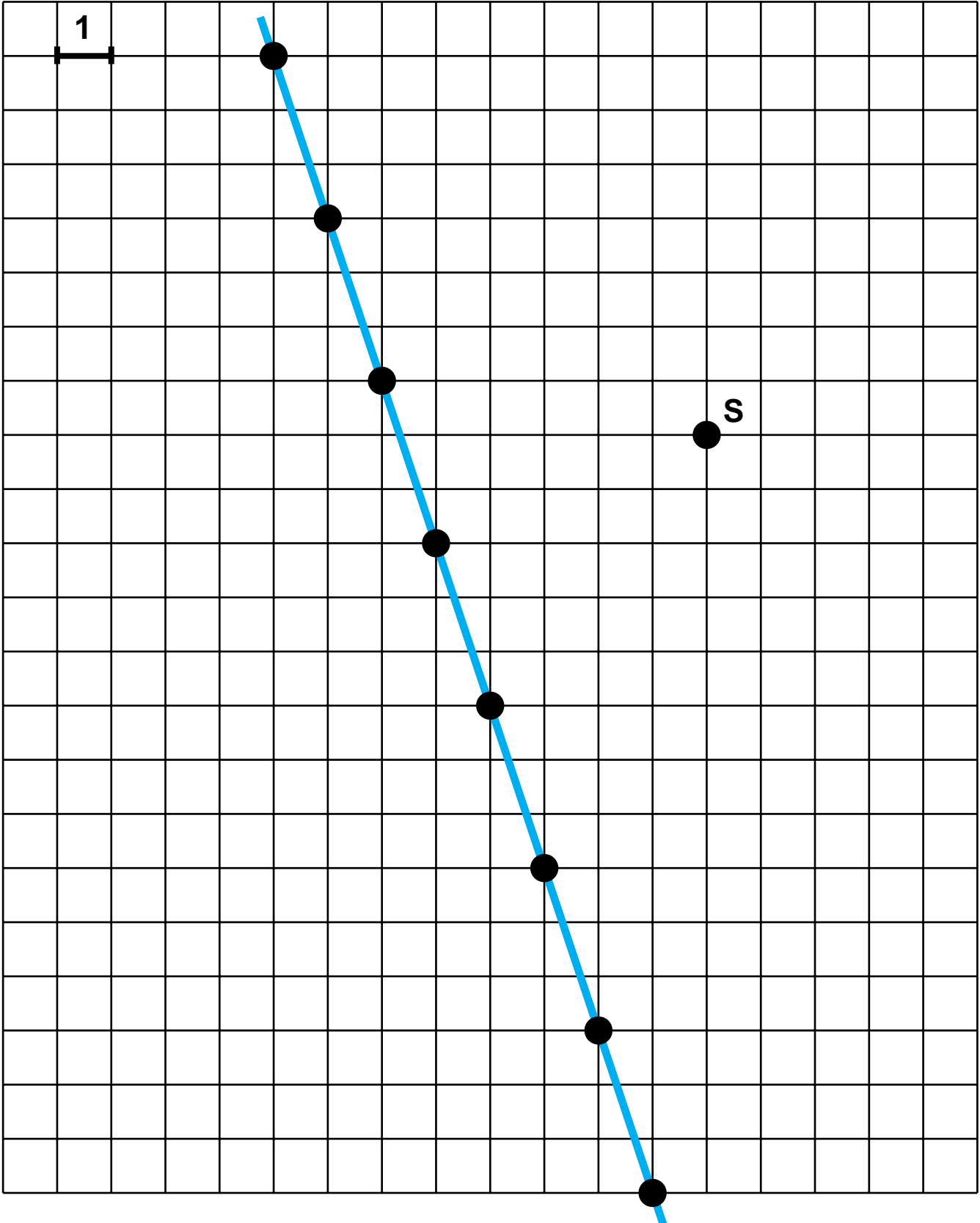
G5 \*

Circle in red the stations that are closest to T.  
Find the taxi-distance from T to each station.



Name \_\_\_\_\_

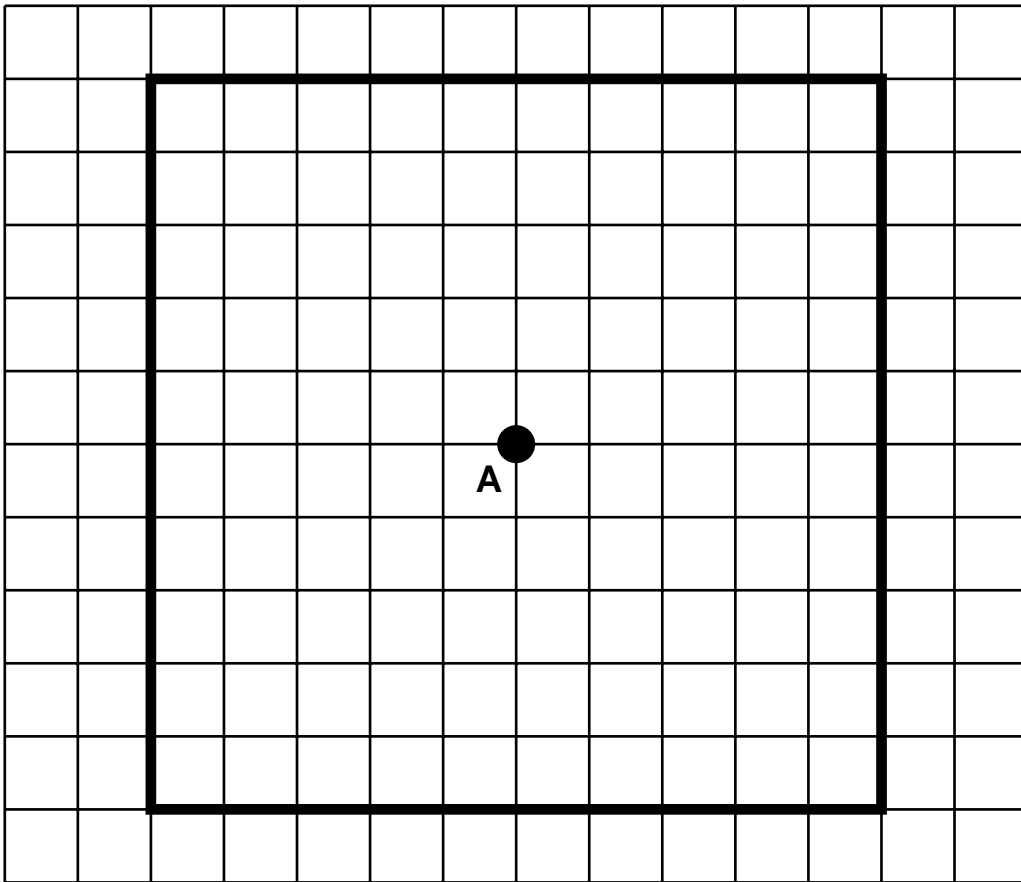
Circle in red the stations that are closest to S.  
Find the taxi-distance from S to each station.



Name \_\_\_\_\_

G6(a)

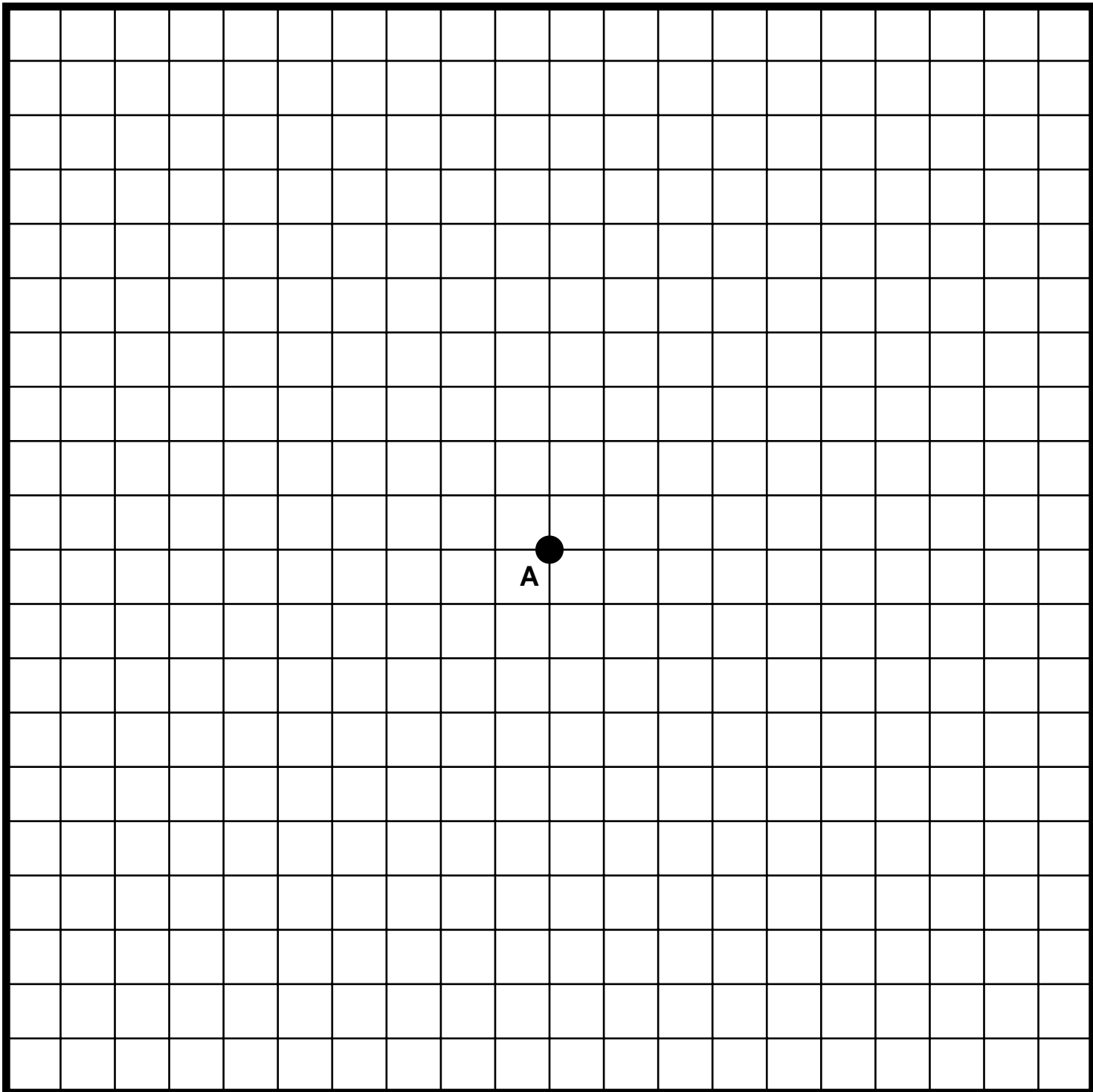
Draw a spiral starting at A. Do not go beyond the border of the large black square.



Name \_\_\_\_\_

G6(b)

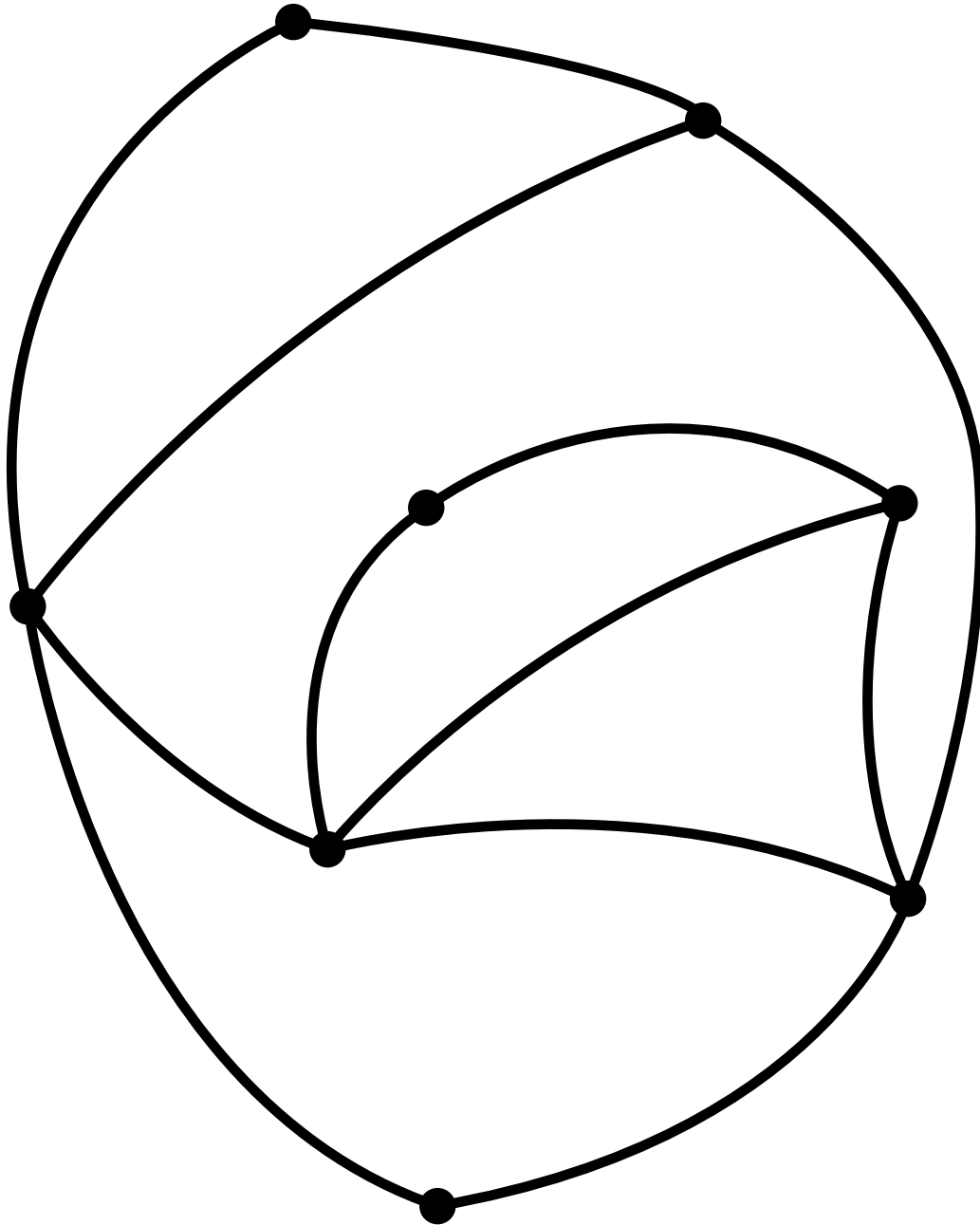
Draw a spiral starting at A. Do not go beyond the border of the large black square.



Name \_\_\_\_\_

G7(a)

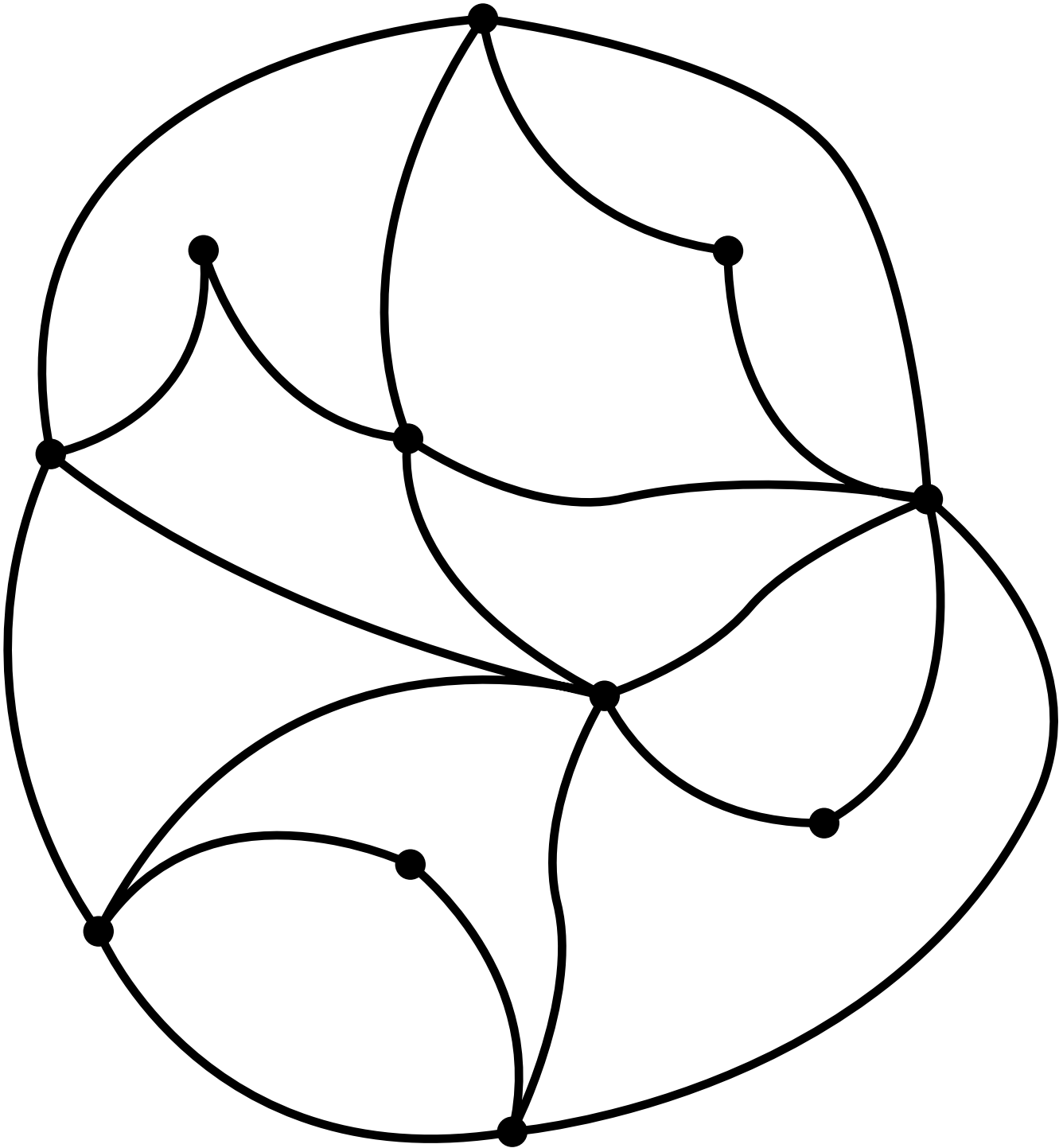
Find a hiking trail that uses all the paths. Write **s** at your starting point and **E** at your ending point.



Name \_\_\_\_\_

G7(b)

Find a round-trip trail that uses every path just once.

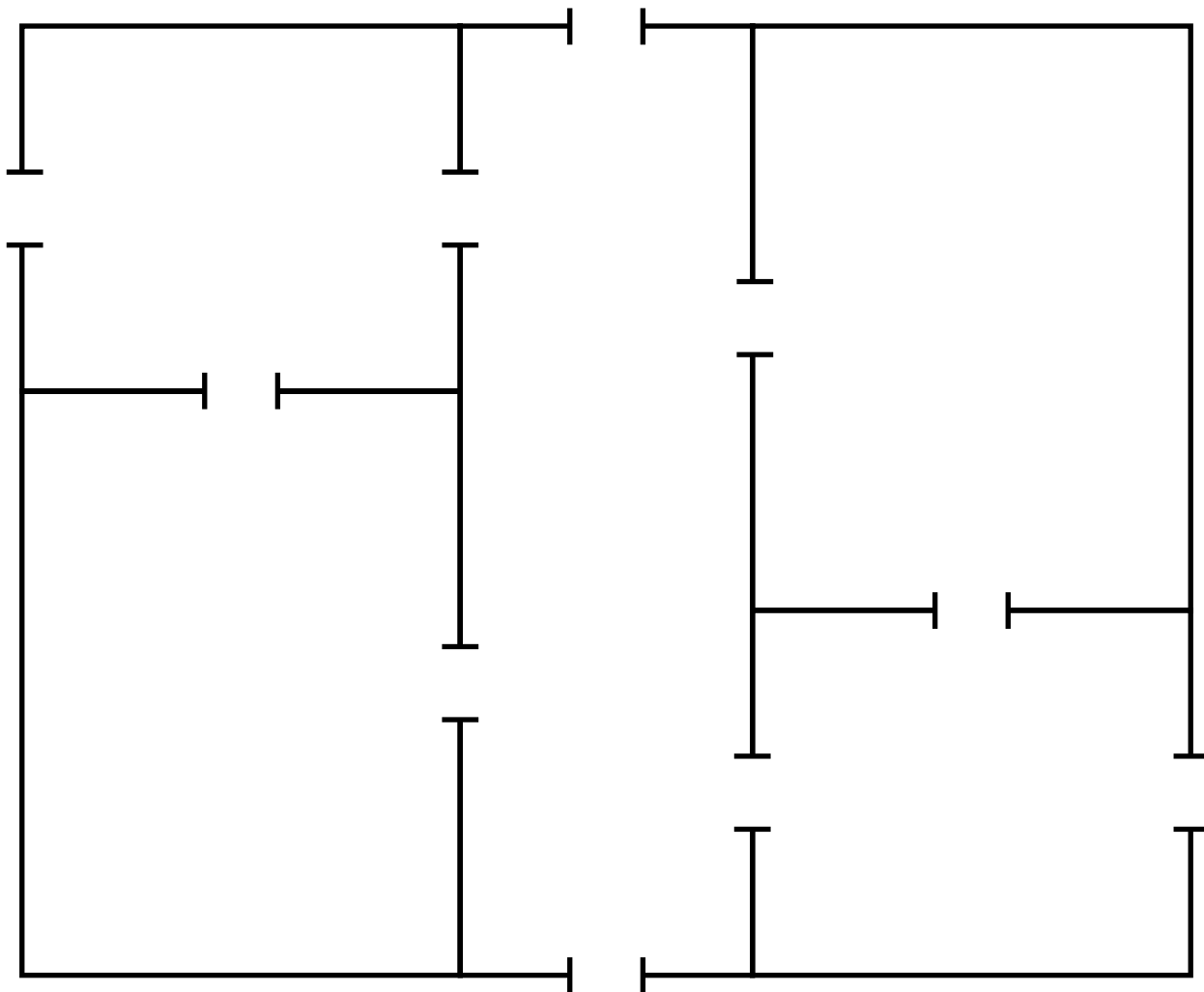


Name \_\_\_\_\_

G8 \*

**TOUR: Uses each door exactly once**

Find a tour of this house. You may start and end where you like. Mark your starting place **S** and your ending place **E**.

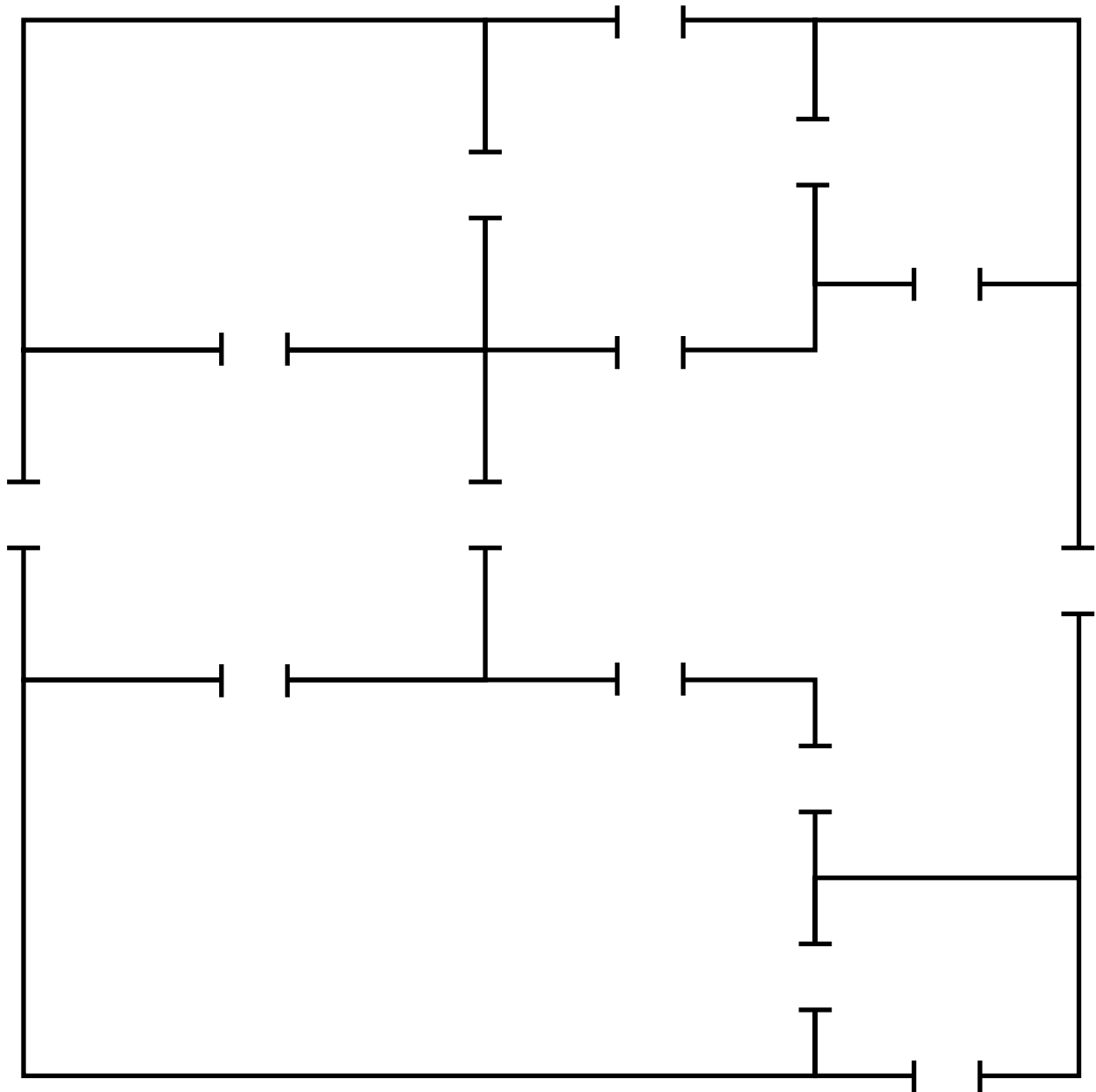


Name \_\_\_\_\_

G8 \*\*

**TOUR: Uses each door exactly once**

Find a tour of this house. You may start and end where you like. Mark your starting place **S** and your ending place **E**.



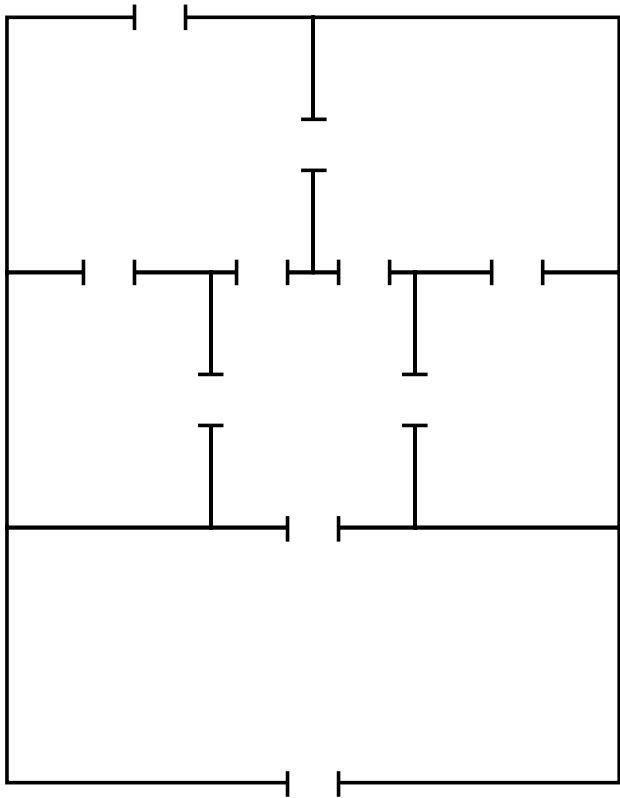


Name \_\_\_\_\_

G8 \*\*\*

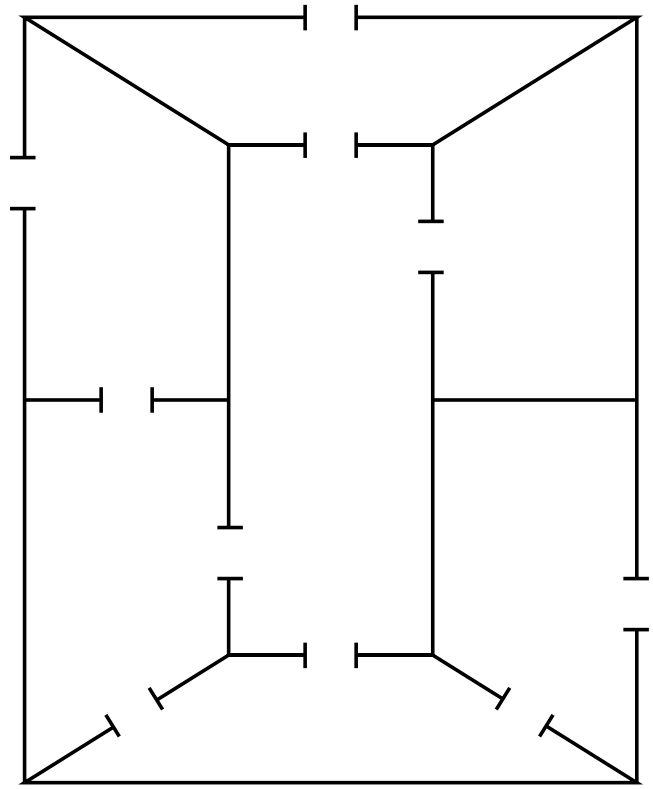
**TOUR: Uses each door exactly once**

Try to find tours of these houses.



Possible

Impossible



Possible

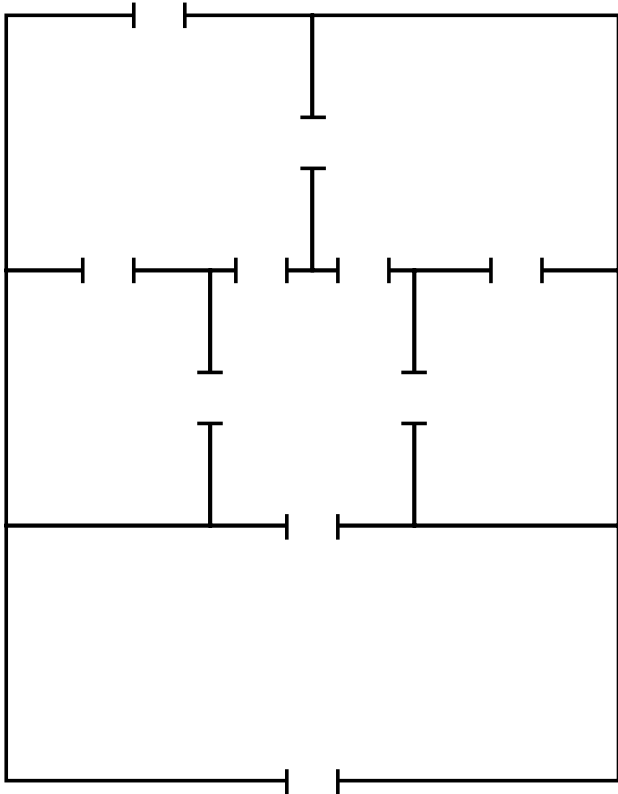
Impossible

Name \_\_\_\_\_

G8 \*\*\*\*\*

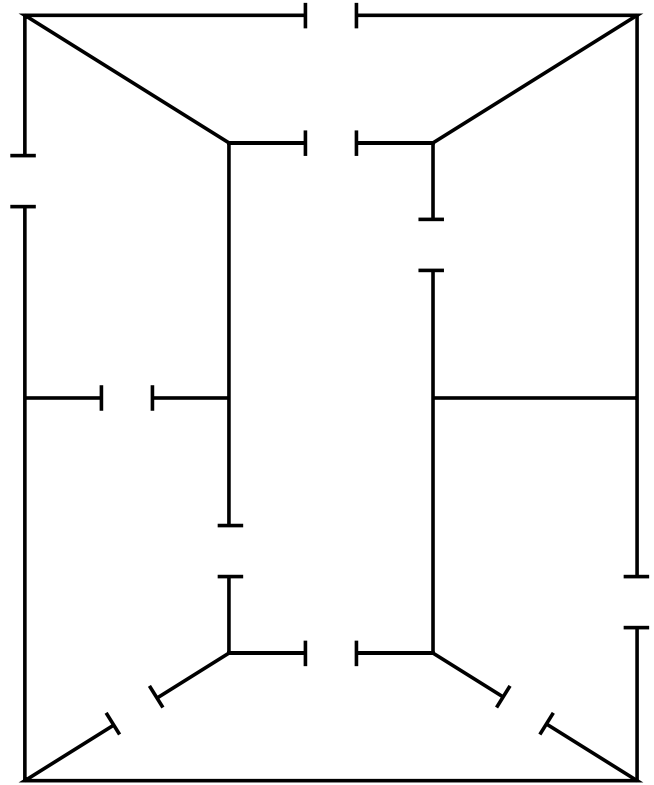
**TOUR: Uses each door exactly once**

Try to find tours of these houses that start and end at the same place.



Possible

Impossible



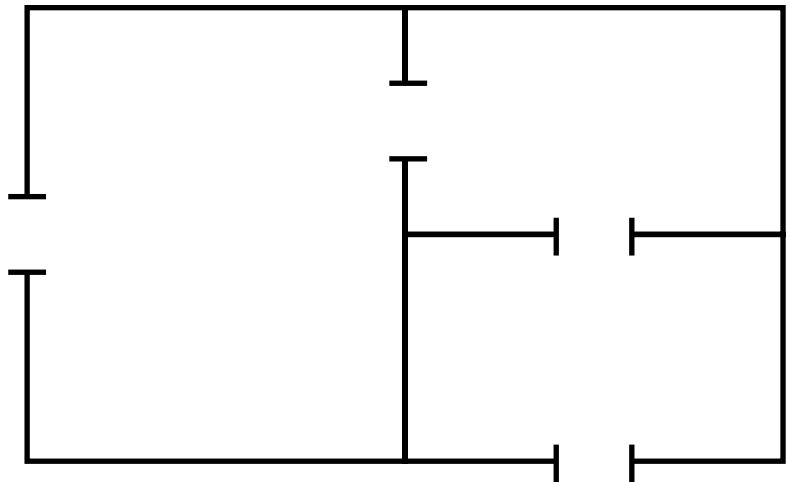
Possible

Impossible

Name \_\_\_\_\_

**TOUR: Uses each door exactly once**

Find a tour of this house. You may start and end where you like.



On tracing paper, draw a map of this house. Show a hiking trail corresponding to your tour.

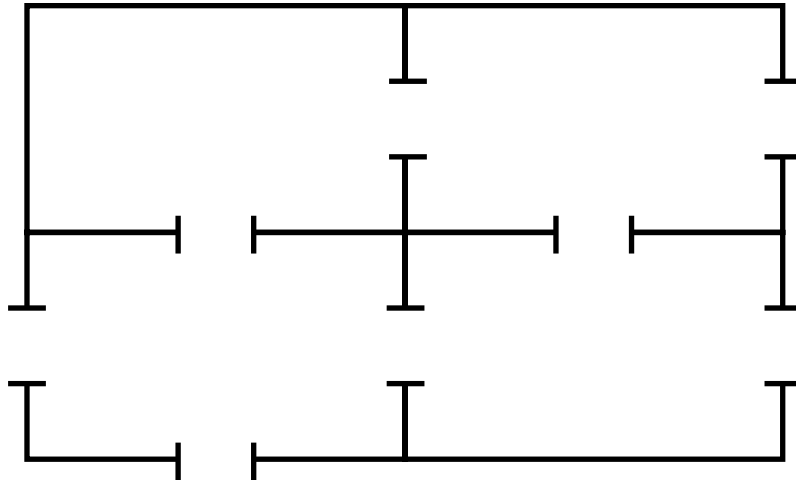
Name \_\_\_\_\_

G9

\*\*

**TOUR: Uses each door exactly once**

Find a tour of this house. You may start and end where you like.



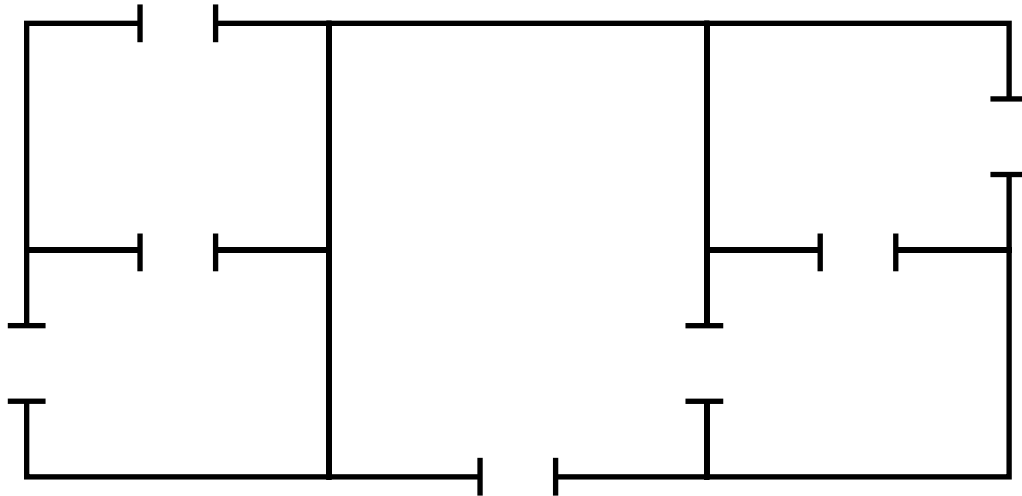
On tracing paper, draw a map of this house. Show a hiking trail corresponding to your tour.

Name \_\_\_\_\_

G9      \*\*\*

**TOUR: Uses each door exactly once**

Find a tour of this house. You may start and end where you like.

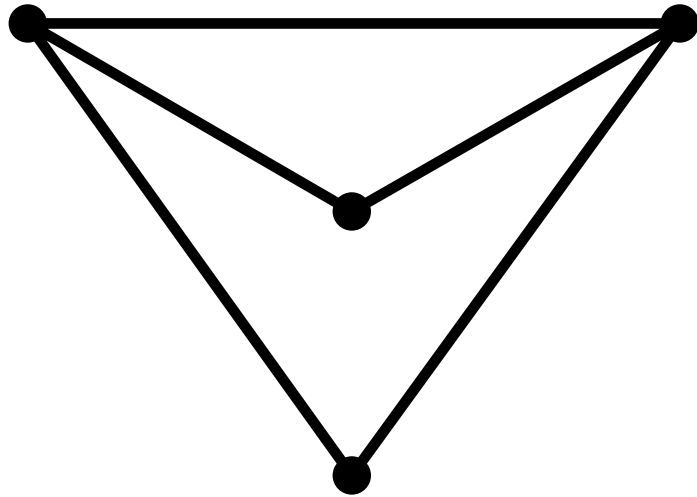


On tracing paper, draw a map of this house. Show a hiking trail corresponding to your tour.

Name \_\_\_\_\_

G9      \*\*\*\*

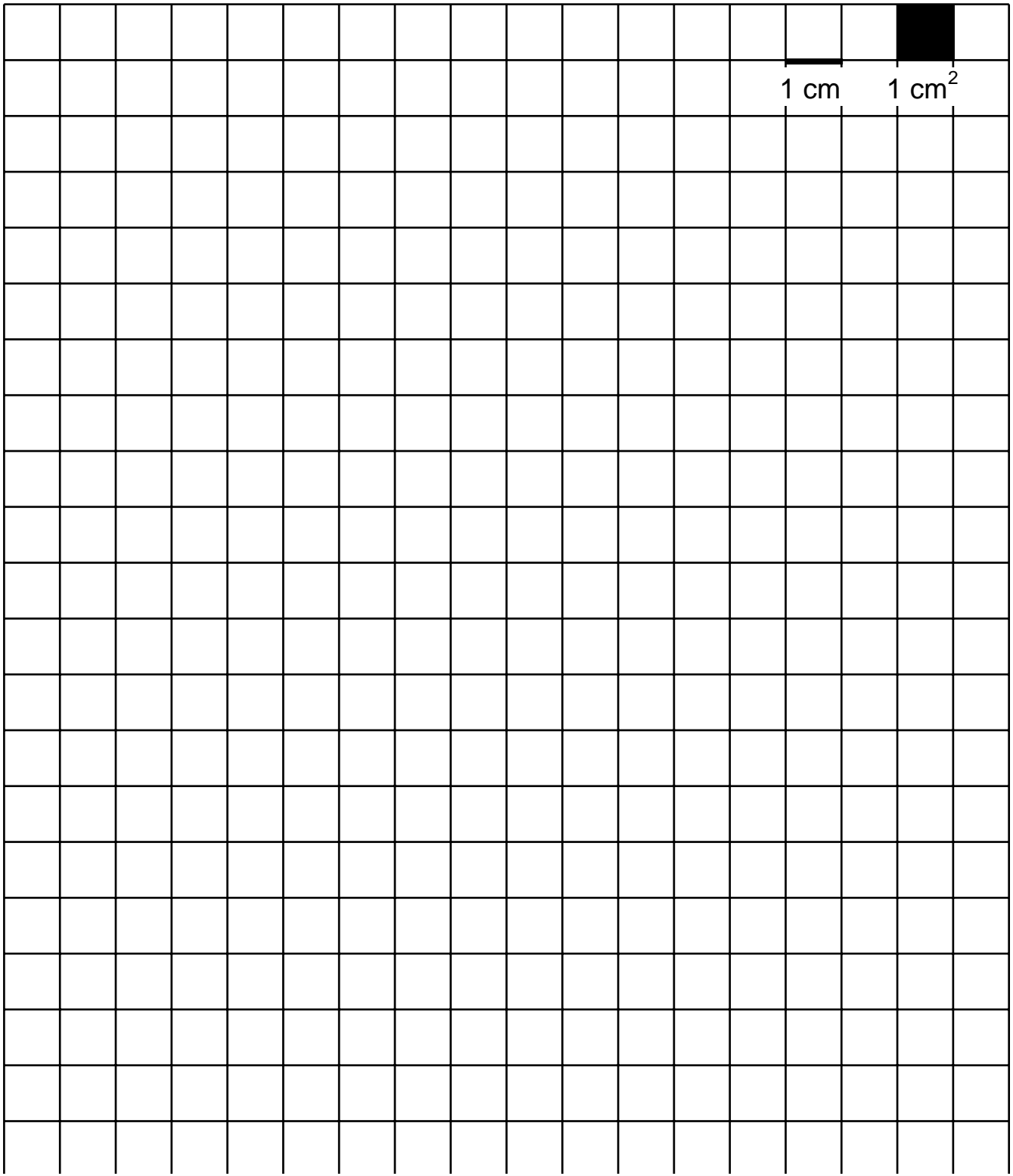
Draw a house plan for this map.



Name \_\_\_\_\_

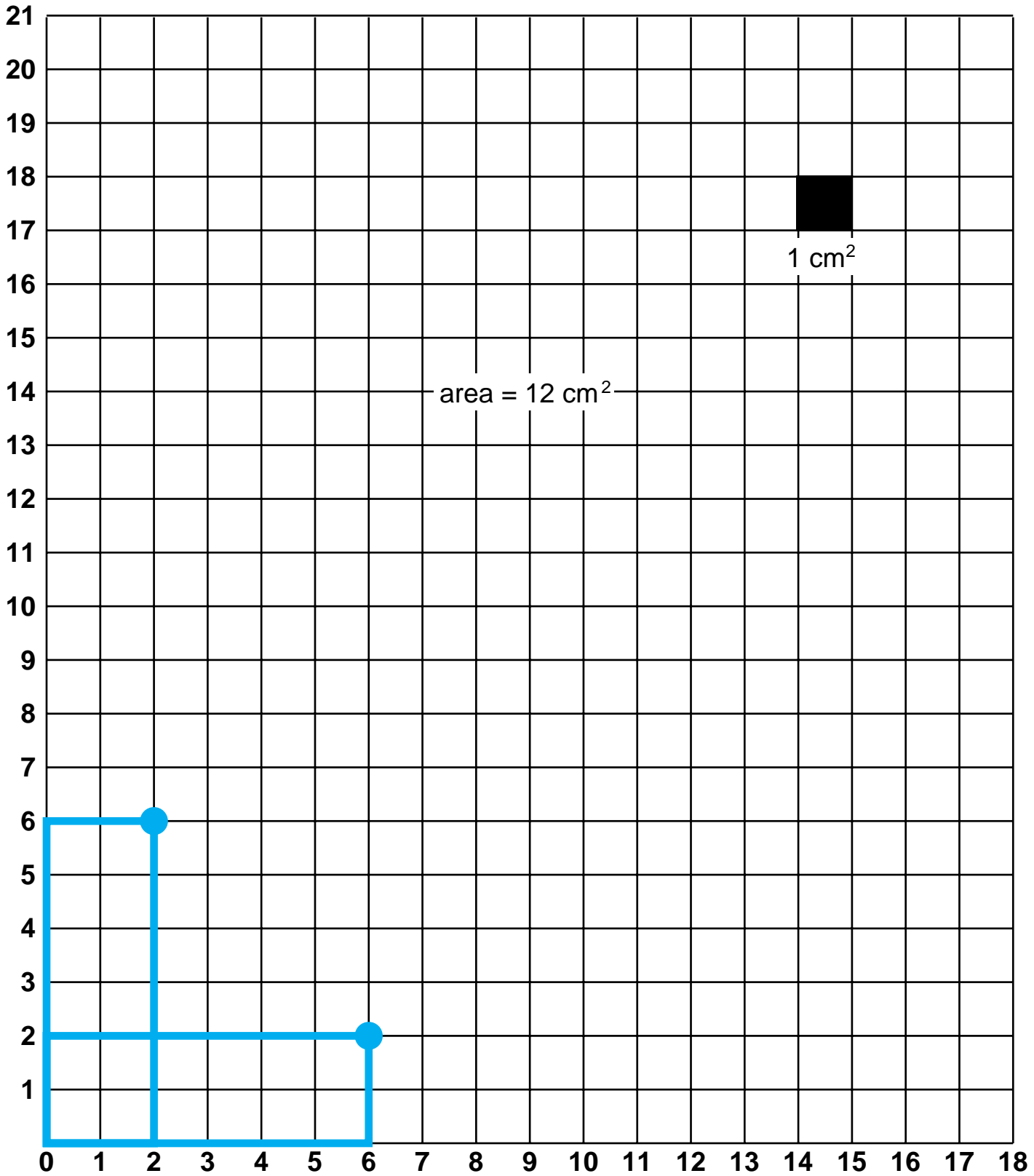
G10( a)

Color and cut out several rectangles, each with area  $12 \text{ cm}^2$ .



Name \_\_\_\_\_

G10( b)

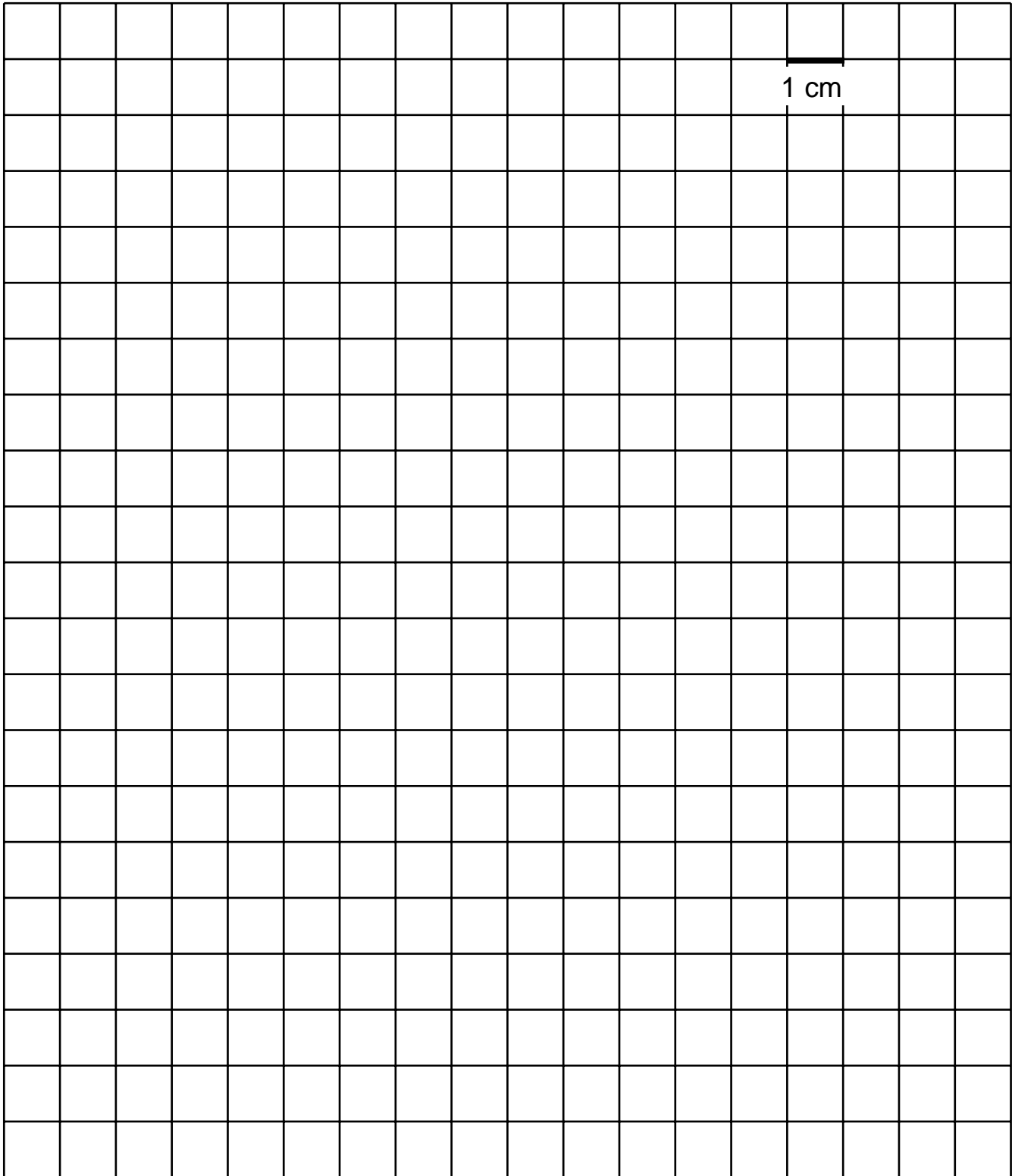




Name \_\_\_\_\_

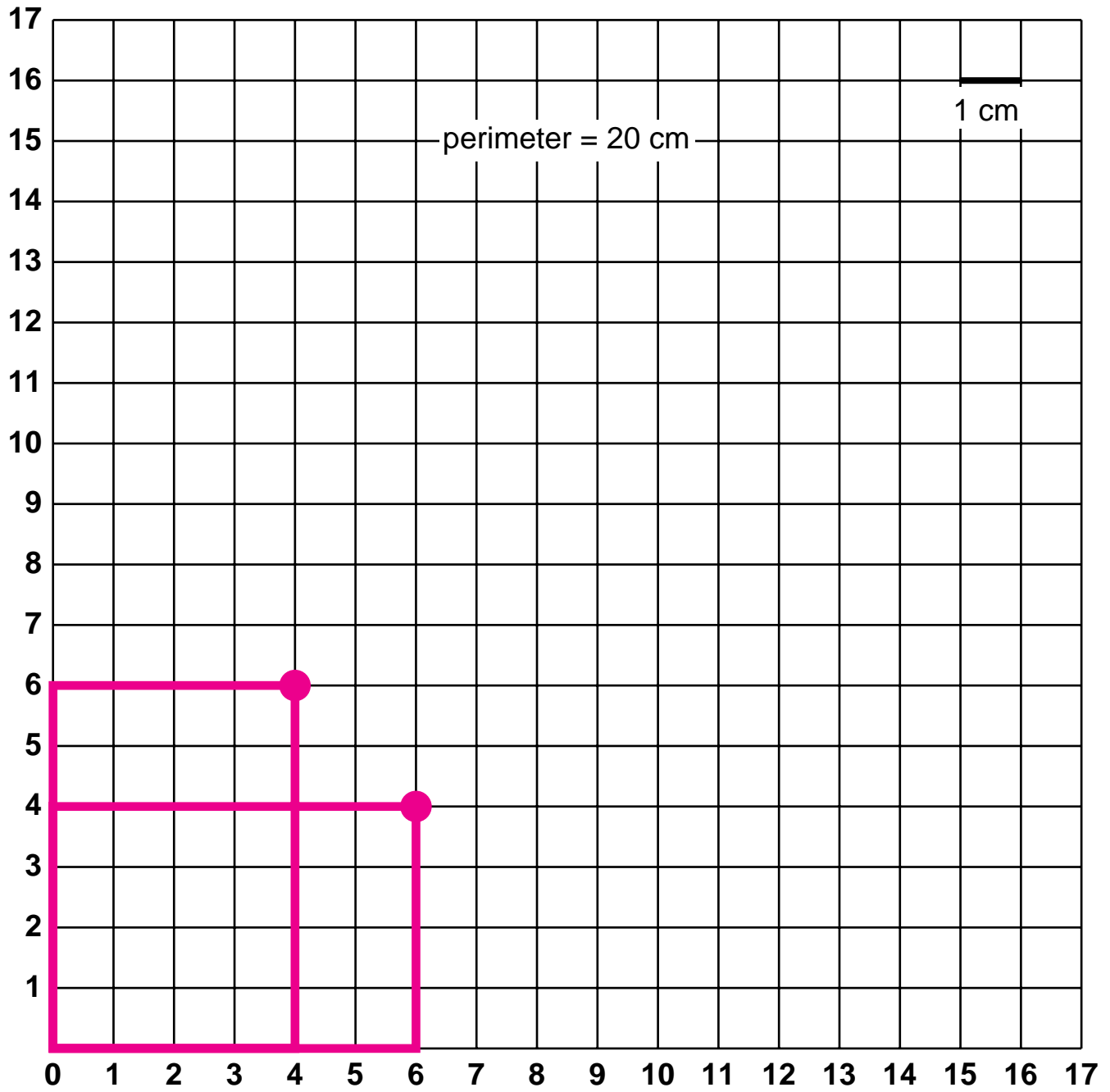
G11( a)

Color and cut out several rectangles with perimeter 20 cm.



Name \_\_\_\_\_

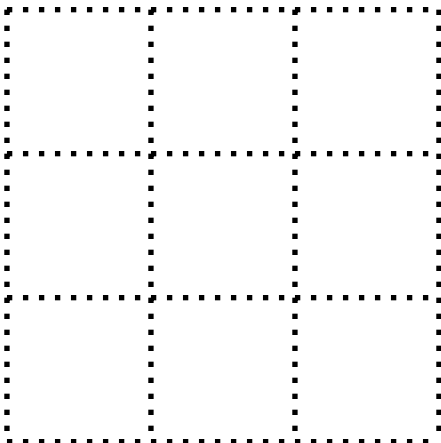
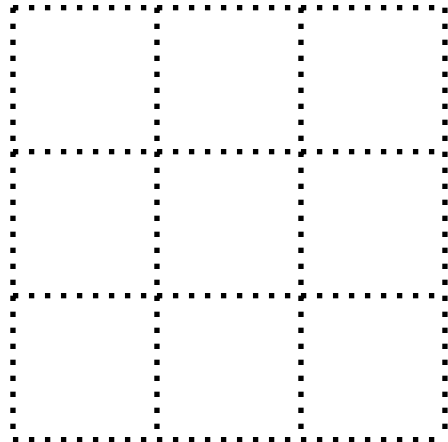
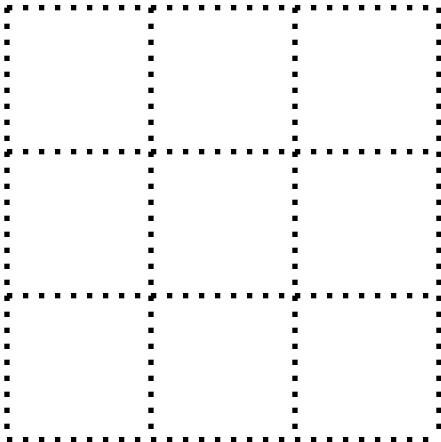
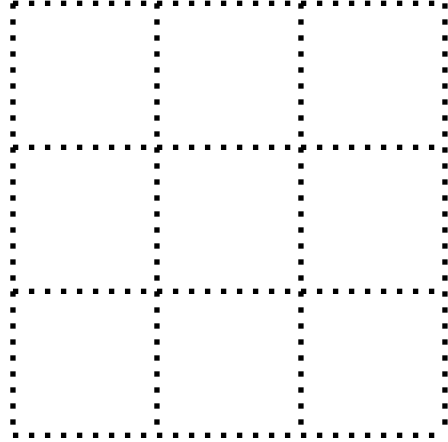
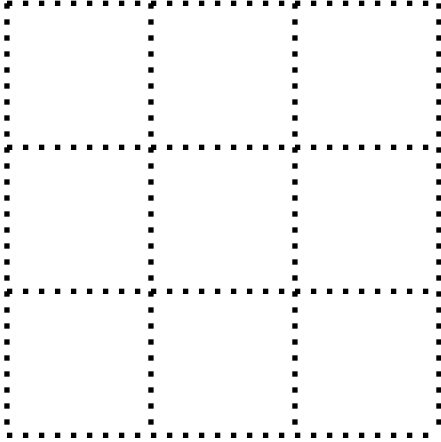
G11( b)



Name \_\_\_\_\_

G12 \*

Try to find the highest score for a tracing in this grid.

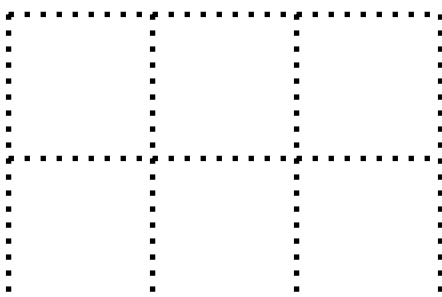
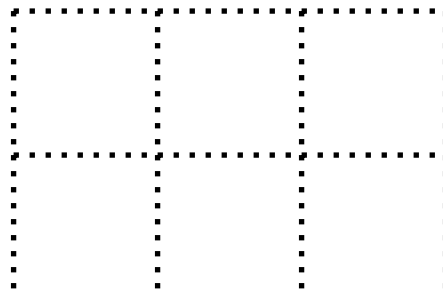
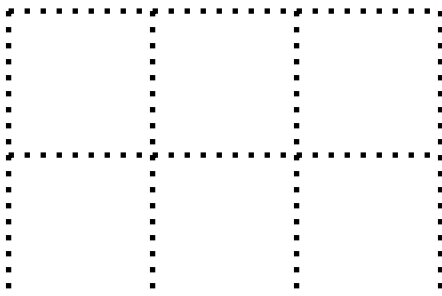
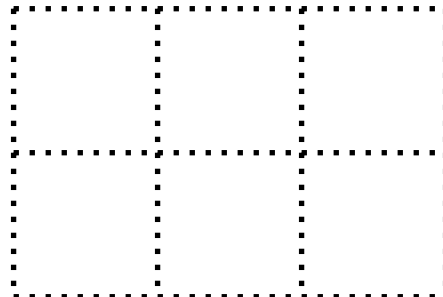
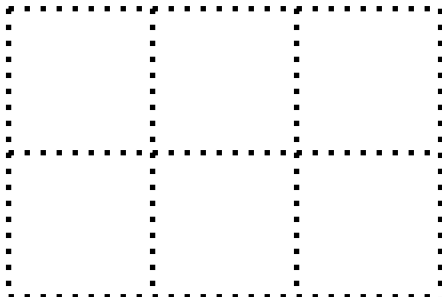
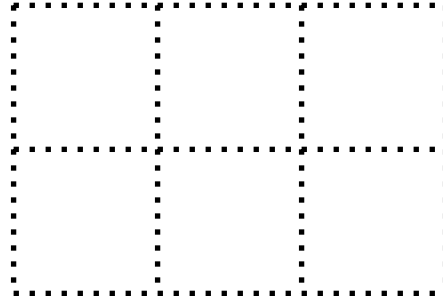
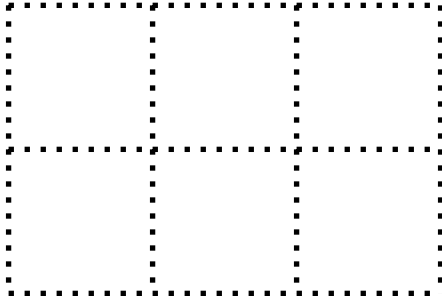


HIGHEST  
SCORE

Name \_\_\_\_\_

G12 \*\*

Try to find the highest score for a tracing in this grid.

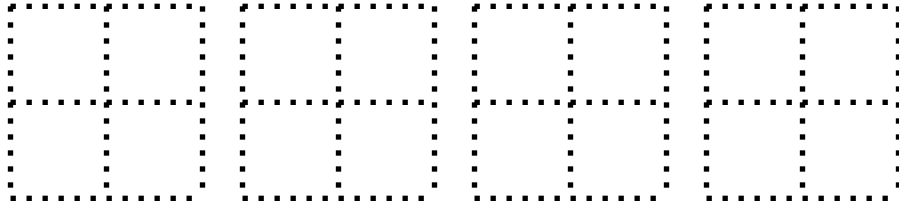


HIGHEST  
SCORE

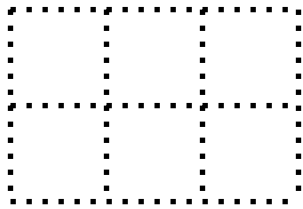
Name \_\_\_\_\_

G12 \*\*\*

Try to find the highest score for a tracing in these grid pictures.

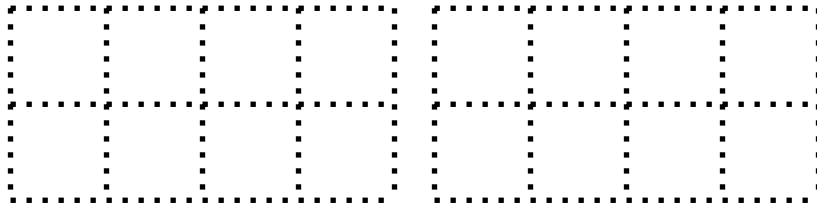
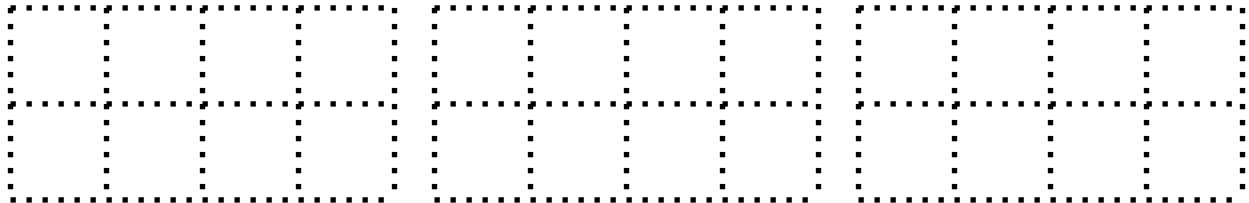


HIGHEST  
SCORE

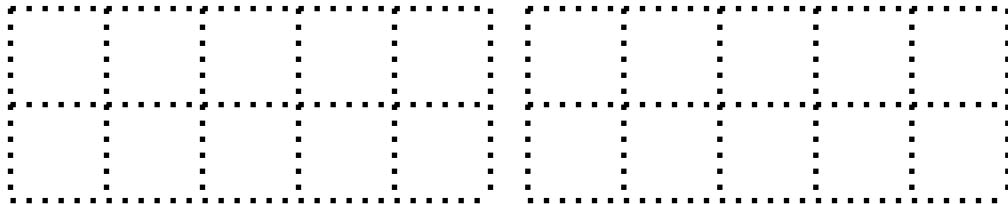
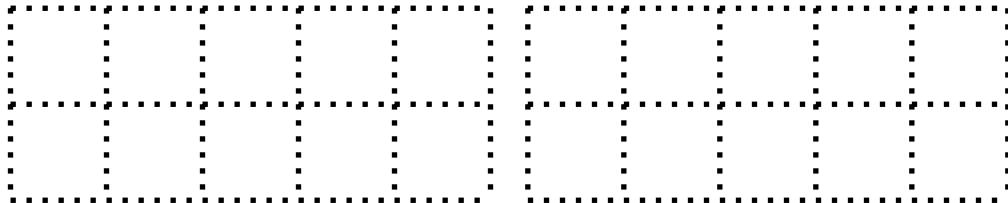


Check your answer  
from Worksheet G12\*\*

HIGHEST  
SCORE



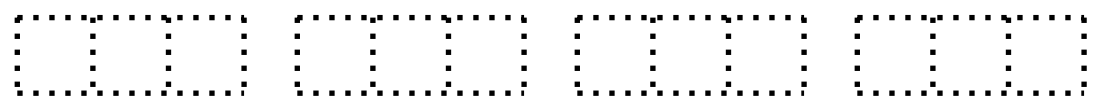
HIGHEST  
SCORE



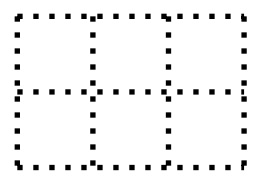
HIGHEST  
SCORE

Name \_\_\_\_\_

Try to find the highest score for a tracing in these grid pictures.

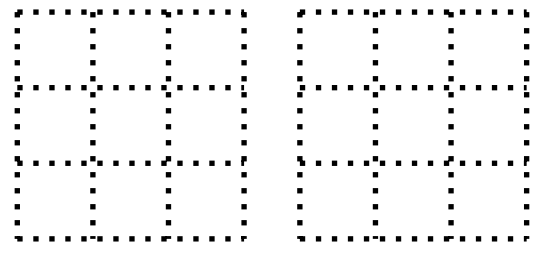


HIGHEST  
SCORE



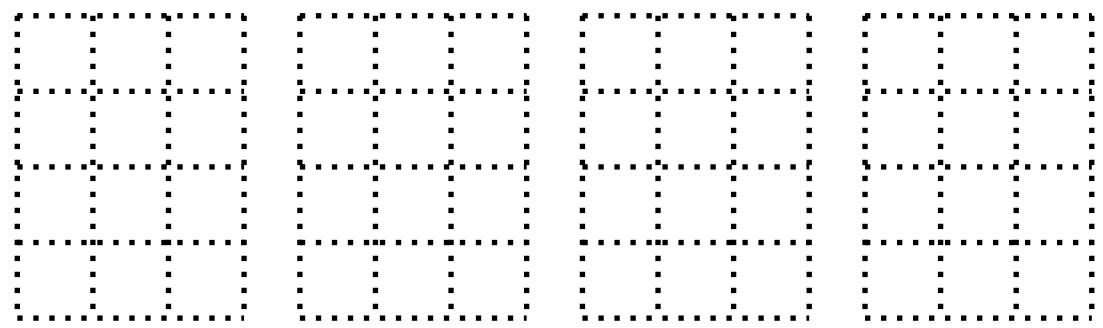
Check your answer  
from Worksheet G12\*\*

HIGHEST  
SCORE

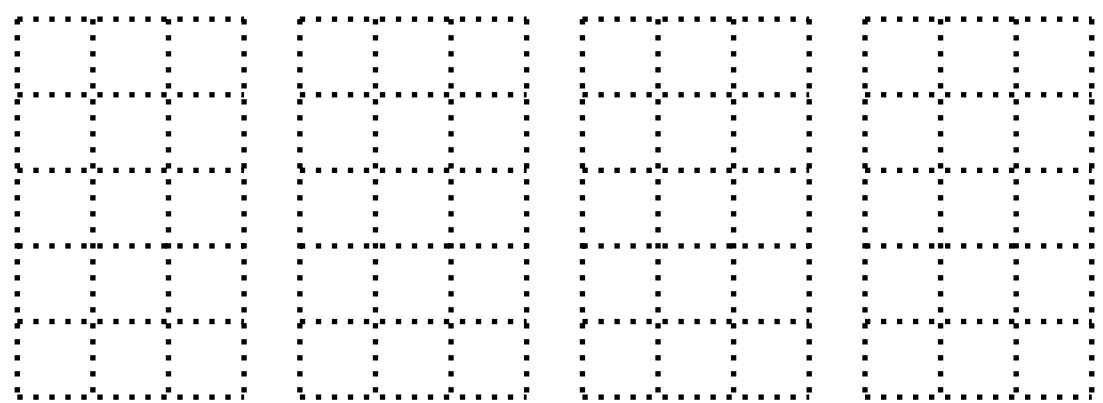


Check your answer  
from Worksheet G12\*

HIGHEST  
SCORE



HIGHEST  
SCORE



HIGHEST  
SCORE

Name \_\_\_\_\_

What number is on the Minicomputer?

	10

 = \_\_\_\_\_

10	●

 = \_\_\_\_\_

	●
	10

 = \_\_\_\_\_

	●
10	●

 = \_\_\_\_\_

	●
●	10

 = \_\_\_\_\_

●	
10	

 = \_\_\_\_\_

●	
	● 10

 = \_\_\_\_\_

10	

 = \_\_\_\_\_

	10 10

 = \_\_\_\_\_

10	●
●	●

 = \_\_\_\_\_

Name \_\_\_\_\_

W3

\*\*

Put each number on the Minicomputer. Use at least one  $\text{\textcircled{10}}$ -checker for each number.

$20 =$ 


$30 =$ 


$21 =$ 


$34 =$ 


$40 =$ 


$70 =$ 


$42 =$ 


$79 =$ 


$45 =$ 


$100 =$ 



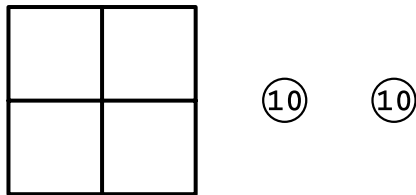

Name \_\_\_\_\_

W3 \*\*\*

Cobb is a secret number.

Clue 1

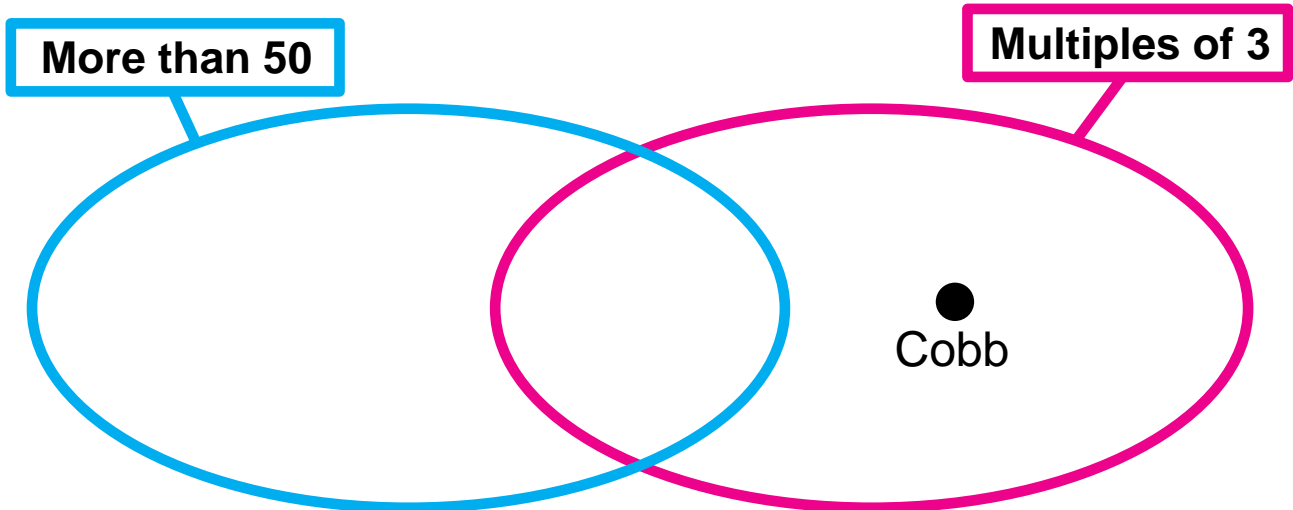
Cobb can be put on the ones board of the Minicomputer with exactly two 10-checkers.



Cobb could be \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

---

Clue 2



Who is Cobb? \_\_\_\_\_

Name \_\_\_\_\_

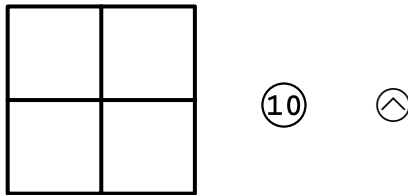
W3

\*\*\*\*

Robb is a secret number.

Clue 1

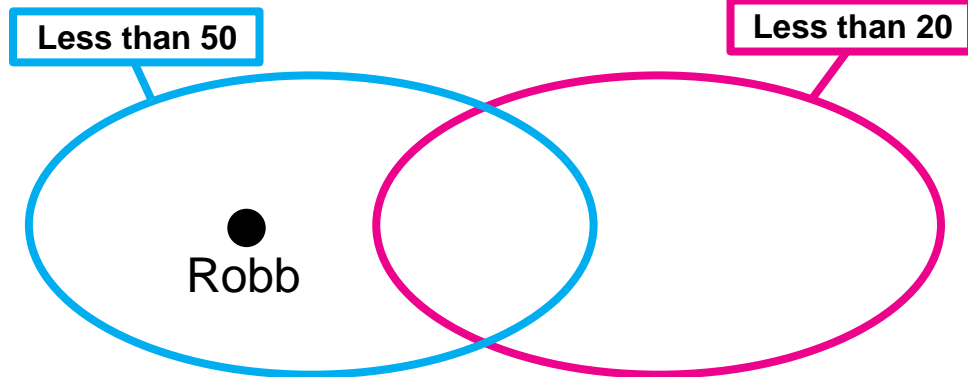
Robb can be put on the ones board of the Minicomputer with one  $\text{\textcircled{10}}$ -checker and one negative checker.



Robb could be \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

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Clue 2

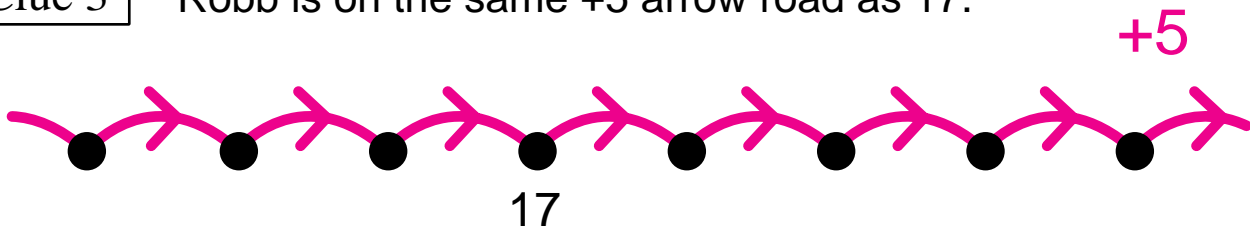


Robb could be \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

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Clue 3

Robb is on the same +5 arrow road as 17.



Who is Robb? \_\_\_\_\_

