Name

# Selection 

of
Problems \#3

Put each of these numbers in the string picture.


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$$
\begin{array}{llll}
11 & 15 & 18 & 20
\end{array}
$$



Write a fraction for the part of the shape colored blue. One is done for you.


Pair the tags. One is done for you.


$$
+2
$$

$$
-1
$$

$$
+24
$$

Flo is a secret number.
Clue 1

Flo is one of these numbers.


Clue 2


Fill in the boxes for the arrows.
Label the dots.


Put a single digit in each box to make the calculations correct.


Put these numbers in the string picture.

$$
\begin{array}{lllllll}
2 & 3 & \widehat{5} & 100 & 36 & 61 & 66
\end{array}
$$



The eraser gremlin has erased the decimal point in each result. Put in the decimal points so that the number sentences are correct.

$$
2.73+5+0.037=7767
$$

$$
116.73-1.691=115039
$$

$$
\begin{gathered}
7-1.063=5937 \\
16.439-7=9439 \\
283 \times 0.9=2547 \\
50.12 \times 2.9=145348
\end{gathered}
$$

Slip and Sly are secret numbers.
Clue 1


Slip could be $\qquad$ , _ , , or $\qquad$ .

Sly could be $\qquad$ or $\qquad$ .

Clue 2


Who is Slip? $\qquad$ Who is Sly? $\qquad$

Build an arrow road from 1315 to the least possible positive number using these arrows.


## 1315

Use the arrow picture to solve this division problem.

$$
6 \overparen{1315}^{R=}
$$

Label the dots. Circle all of the whole numbers in the picture.



Draw a zig-zag path from each dog to the dish of food.
Make the paths as short as possible. Measure the length (in centimeters) of each zig-zag.

Fluffy to food $\qquad$ cm

Mutt to food $\qquad$ cm

Sam to food $\qquad$ cm

Which dog has the shortest path to the food? $\qquad$

Label the dots. There are many possibilities for each dot.
is less than


Put a single digit in each box to make the calculations correct.

$3 \square \div 3=\square 3$

The red label is one of these:

| Multiples of 2 |
| :--- |
| Multiples of 4 |
| Multiples of 5 |
| Odd numbers |

Less than 50
Positive divisors of 12
Positive divisors of 20
Positive divisors of 24

The blue label is one of these:

| Multiples of 2 |
| :---: |
| Multiples of 4 |
| Multiples of 5 |
| Odd numbers |
| Less than 50 |
| Positive divisors of 12 |
| Positive divisors of 20 |
| Positive divisors of 24 |

Label the strings.


Build an arrow road from 6.8 to 9.2 using +0.1 and +0.4 arrows.

$$
+0.1+0.4
$$

9.2
6.8

Blif the Martian raises googels and cowees. Googels have four eyes and cowees have five eyes. Their eyes glow in the dark. One night Blif looks out the window and sees 26 eyes. How many of each animal does Blif see?
googels and $\qquad$ cowees


Frik is a secret number.

Clue 1

Frik is in this arrow picture.


Clue 2

Frik can be put on this Minicomputer by adding exactly one negative checker.


Who is Frik? $\qquad$

Fill in the boxes and then label the arrows.

$$
\begin{aligned}
& \widehat{6} \times 3=\square \\
& \widehat{6} \times 2=\square \\
& \widehat{6} \times 1=\square \\
& \widehat{6} \times 0=\square\}+\square \\
& \widehat{6} \times \widehat{1}=\square\} \\
& \widehat{6} \times \widehat{2}=\square
\end{aligned}
$$

Fill in the boxes for the arrows and then label the dots.


Kuth is a secret number.

## Clue 1

Kuth is one of these numbers.


Clue 2


Who is Kuth?

Place the double mirror on the red lines. Draw what you see in the mirror in regions 2,3 , and 4.



Complete the table to show what the image would be in each region.

| Region 1 | Region 2 | Region 3 | Region 4 |
| :---: | :---: | :---: | :---: |
| $\square \times \square$ |  |  |  |
|  | $\uparrow$ |  |  |
|  |  | $\square$ | $\square$ |



Complete the chart. One pair is done for you.

| $2 x$ | $30 x$ |
| :---: | :---: |
| $5 x$ |  |
|  | $15 x$ |
|  |  |
| $0.5 x$ |  |
|  |  |

Slo is a secret number.
Clue 1
One of these red dots is for Slo.


Slo could be $\qquad$ , $\qquad$ , —_, $\qquad$ , ___ or $\qquad$ .

Clue 2
Slo is in this arrow picture. Label the dots.


Who is Slo? $\qquad$


Give the dimensions of the largest cube that can be made with:

10 centimeter cubes

64 centimeter cubes $\qquad$

97 centimeter cubes

500 centimeter cubes

Label each dot in the arrow picture with one of these numbers. Use each number exactly once.
$\begin{array}{llll}5.4 & 5.8 & 6.1 & 6.4\end{array}$
$\begin{array}{lllll}6.5 & 6.8 & 6.9 & 7.2 & 7.5\end{array}$


Kilo is a secret number.
Clue 1
Kilo is one of these numbers.


Clue 2
One of these red dots is for Kilo. Label all of the red dots.


Who is Kilo?

The numbers on this map indicate the length of each path.


The distance between two cities is the length of a shortest route. What is the distance from Arp to Duke? $\qquad$
List all of the cities whose distance from Fife is less than 30.

Draw in blue a journey of length less than 120 that starts in Cobb, visits each city at least once, and then ends in Cobb.

What is the length of your journey? $\qquad$

The red label is one of these:
Multiples of 2

| Multiples of 3 |
| :---: |
| Greater than 20 |
| Less than 20 |

Positive divisors of 18
Positive divisors of 20

## Positive divisors of 27

Label the strings.


Chud is a secret number.

Clue 1

Chud is a four-digit number with exactly two 5 s , one 2 , and one 8. For example, Chud could be 5285.

Chud could be $\qquad$ , $\qquad$
$\qquad$
$\qquad$ ,
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$ , or $\qquad$ .

Clue 2


Who is Chud? $\qquad$

This picture is the map of the tunnels in a large cave. Nabu does not have a map and is lost near the center of the cave. Being lost, Nabu randomly decides which tunnels to follow. Nabu may be lucky and take a tunnel that leads to an exit, or he may be unlucky and take a tunnel to a dead end.


What are Nabu's chances of taking a tunnel that leads directly to:
a) one of the exits? $\qquad$ b) a dead end? $\qquad$

You may use this square or any other method to solve this problem. $\square$

