

# Special Problems

Name \_\_\_\_\_

**STEPS TO FOLLOW**

- I. Read each selection.
- II. Choose the word or phrase that *best* completes the selection or that *best* answers a question about the selection.
- III. Look at the answer spaces at the right.
- IV. Fill in the space which has the same number as the answer you have chosen.

**SAMPLES**

I saw something funny on TV. It was a —

- |         |        |           |
|---------|--------|-----------|
| A 1 car | 3 girl |           |
| 2 clown | 4 rock | A ① ● ③ ④ |

Joe is often quite tardy. This week, however, he has been on time every day.

- |                  |         |           |
|------------------|---------|-----------|
| B Joe is often — |         |           |
| 5 late           | 7 tired |           |
| 6 absent         | 8 early | B ⑤ ⑥ ⑦ ⑧ |

C This week he has been —

- |          |           |           |
|----------|-----------|-----------|
| 1 worse  | 3 on time |           |
| 2 absent | 4 late    | C ① ② ③ ④ |

Most American boys and girls have eaten canned herring, or sardines as they are often called, or they have at least seen them in a store. The Frost family had them in sandwiches on some Saturdays. However, none of the family—Father, Mother, Billy, or Betty Joe—knew much about them until they took a vacation trip to Canada and on the way visited a sardine cannery in Eastport, Maine. Here they learned that there is more to a sardine than what one eats. They learned that on the way from the ocean water to the cannery, the fish thrash off most of their scales. The iridescent part of these scales is used to give a shine to lipstick and nail polish, and the scales themselves are ground up and used in some fire extinguishers. The Frosts also saw the fish themselves being cleaned, neatly packed in sterilized cans, and sealed under pressure. The next time the Frosts ate sardines, they thought they tasted even better than before, especially when the tin was marked "From Eastport, Maine."

On the way to Canada, the Frosts went through which of these states?

- 5 California            7 Maine  
6 Florida                8 Texas                    ⑤ ⑥ ⑦ ⑧

The Frost family liked to eat herring —

- 1 in sandwiches  
2 for breakfast  
3 almost daily  
4 with pickles                    ① ② ③ ④

According to this paragraph, sardines are caught in —

- 5 lakes                    7 the ocean  
6 rivers                    8 Canada                    ⑤ ⑥ ⑦ ⑧

The trip to the cannery gave the whole Frost family —

- 1 a view of the ocean  
2 much interesting information  
3 a supply of sardines  
4 a new hobby                    ① ② ③ ④

The sardine cans at Eastport are closed —

- 5 by hand  
6 in the ocean  
7 under water  
8 under pressure                    ⑤ ⑥ ⑦ ⑧

"Iridescent" as used here means —

- 1 dull                      3 shining  
2 sticky                    4 waste                    ① ② ③ ④

From the longleaf pine, which grows abundantly in the southern United States, the valuable product turpentine is obtained during the spring by cutting and scarring the trunks of the trees. The sap which runs from the cuts is collected, placed in copper stills, and heated until the lighter products are driven off as vapors. These are condensed by means of cold water to "spirits of turpentine," which, when pure, is a colorless liquid with a penetrating, aromatic odor and a bitter, burning taste. "Spirits of turpentine" can be purchased in many hardware, art, drug, and even grocery stores and has several household uses as well as the main commercial use in thinning paint.

Longleaf pine trees are a valuable source of —

- 5 turpentine  
6 a sweet-smelling liquid  
7 maple syrup  
8 pine needles                    ⑤ ⑥ ⑦ ⑧

Which one of the following people might be most likely to buy turpentine at a store?

- 1 cook                      3 photographer  
2 artist                    4 writer                    ① ② ③ ④

Pure spirits of turpentine —

- 5 has a sweet taste  
6 has no odor  
7 has a penetrating odor  
8 is brown in color                    ⑤ ⑥ ⑦ ⑧

Spirits of turpentine is of greatest value to —

- 1 farmers                    3 house painters  
2 doctors                    4 sailors                    ① ② ③ ④

The sap which makes turpentine is obtained from trees —

- 5 in very hot weather  
6 all year around  
7 in the spring  
8 before the snow melts                    ⑤ ⑥ ⑦ ⑧

To extract turpentine from trees, it is necessary to —

- 1 burn the tree  
2 boil the wood  
3 cut down the trees  
4 break the bark on the trunk                    ① ② ③ ④

Where could there be a better place for two boys to play double catch with a softball than along the Cape Hatteras National Seashore in North Carolina? The sandy beaches of this National Seashore, the first of its kind in the United States, extend for over seventy miles. In some places the beaches are flat and good for playing games, and in other places great mountains of sand dunes provide excellent spots for games of hide-and-seek and for high jumps. Then there is always the ocean for a cool swim after the games are over. What a place for a summer vacation!

The first National Seashore area in the United States was on —

- 1 a mountain
- 2 Cape Hatteras
- 3 Cape Cod
- 4 the Florida keys ① ② ③ ④

According to this story, a good sport to follow beach games is —

- 5 hiking
- 7 swimming
- 6 reading
- 8 surfing ⑤ ⑥ ⑦ ⑧

Which one of the following games or sports is *not* mentioned in this paragraph?

- 1 double catch
- 3 swimming
- 2 hide-and-seek
- 4 baseball ① ② ③ ④

What is the approximate number of miles bordering on water in the Cape Hatteras National Seashore?

- 5 0
- 6 7
- 7 70
- 8 You can't tell from the paragraph. ⑤ ⑥ ⑦ ⑧

The Cape Hatteras National Seashore is considered an ideal playground because of its —

- 1 variety of features
- 2 cool mountain air
- 3 historical past
- 4 salt-water swimming pools ① ② ③ ④

Sand dunes at the North Carolina shore were probably made by —

- 5 wind and water
- 6 erosion
- 7 high plows
- 8 children playing in the sand ⑤ ⑥ ⑦ ⑧

Cape Hatteras National Seashore extends —

- 1 around the Great Lakes
- 2 along the Atlantic Coast
- 3 along the Pacific Coast
- 4 into the Caribbean Sea ① ② ③ ④

According to legend, Minerva was a beautiful Greek goddess who caught and then tamed the great flying horse, Pegasus. Since Minerva didn't really want a horse for herself, she wondered what to do with him. Because of his wings, Minerva knew that Pegasus was not an ordinary horse. She believed that he was not meant to be ridden by any mortal man, and, therefore, gave him to the nymphs to bring up. They gave Pegasus the best of care, and saw that he was well fed and that his coat was kept shiny, his mane long and flowing, and his wings brushed. They even rode him on special days. However, unlike Minerva, they thought that some day he would belong to a wonderful man, and they wanted to keep him ready. That is just what happened, for a charming and good prince by the name of Bellerophon saw Pegasus and rode away on him.

Pegasus was not an ordinary horse because he had —

- 5 magic power
- 6 wings
- 7 golden reins
- 8 a man's head ⑤ ⑥ ⑦ ⑧

Who caught Pegasus first?

- 1 Minerva
- 2 the nymphs
- 3 Bellerophon
- 4 a prince ① ② ③ ④

At first Pegasus was a —

- 5 wild horse
- 7 goddess
- 6 prince
- 8 frog ⑤ ⑥ ⑦ ⑧

According to legend, Pegasus' mane was kept —

- 1 long and flowing
- 2 shiny
- 3 curled
- 4 trimmed ① ② ③ ④

The nymphs might be said to have acted without Minerva's —

- 5 courage
- 7 faith
- 6 approval
- 8 charity ⑤ ⑥ ⑦ ⑧

According to this story, the first real person to own Pegasus was —

- 1 Minerva
- 2 Bellerophon
- 3 the nymphs
- 4 a goddess ① ② ③ ④

It appears from this paragraph that legends are —

- 5 mostly fiction
- 6 no longer told
- 7 always about goddesses
- 8 part real and part fiction ⑤ ⑥ ⑦ ⑧

GO ON TO THE NEXT PAGE

In October, 1969, the lonely mountain town of Sunspot, New Mexico (about forty miles from Alamosordo), began to gain attention. Dr. John L. McLucas, chief scientist of the United States Air Force, helped dedicate there a new three-million-dollar telescope, described as the most important solar instrument built in a decade. The telescope can be seen fifty miles away. The visible part of it looks like a white needle rising through pine trees atop Sacramento Peak, which is at a 9200-foot altitude. Most of the equipment, however, goes down 227 feet into a hole carved out of the rocky ridge. Since the new telescope will give the clearest image man has yet had of the sun's changing surface, scientists believe it will help predict sun flares more exactly and unravel some of the sun's deeper mysteries.

Sunspot, New Mexico, is now best known as the location of —

- 1 a rocket-launching site
- 2 an observatory
- 3 a lighthouse
- 4 a powerful solar telescope                   ① ② ③ ④

The visible part of the New Mexico telescope looks like a —

- 5 cable                   7 needle
- 6 globe                   8 spike                   ⑤ ⑥ ⑦ ⑧

Sunspot, New Mexico, is located —

- 1 in a valley
- 2 in the mountains
- 3 near a large city
- 4 on the shore                   ① ② ③ ④

According to this paragraph, the new telescope will reveal important information about —

- 5 the sun                   7 Mars
- 6 the moon               8 Jupiter               ⑤ ⑥ ⑦ ⑧

What kind of scientist would you most likely find working in Sunspot?

- 1 rocket expert
- 2 radiation technician
- 3 radar man
- 4 astronomer                   ① ② ③ ④

Most of the scientific equipment for the New Mexico telescope is —

- 5 50 miles away
- 6 in a valley
- 7 below ground
- 8 on the moon               ⑤ ⑥ ⑦ ⑧

The top of this telescope is visible —

- 1 227 feet away
- 2 9200 feet away
- 3 50 miles away
- 4 from the ocean           ① ② ③ ④

When I was a boy desiring the title of man  
 And toiling to earn it  
 In the inferno of the foundry knockout,  
 I watched and admired you working by my side,  
 As, goggled, with mask on your mouth and shoulders  
     bright with sweat  
 You mastered the monstrous, lumpish cylinder blocks,  
 And when they clotted the line and plunged to the  
     floor  
 With force enough to tear your foot in two,  
 You calmly stepped aside.

— George Dudley Randall

The man described in the poem wore goggles and a mask because —

- 5 he rode a motorcycle to and from work
- 6 it was the style
- 7 of the working conditions in the foundry
- 8 he couldn't see well                   ⑤ ⑥ ⑦ ⑧

The boy in this poem apparently worked —

- 1 in a foundry
- 2 in the coal mines
- 3 after school
- 4 for fun                   ① ② ③ ④

The air in the foundry apparently was —

- 5 very cold
- 6 comfortable
- 7 very hot
- 8 air-conditioned               ⑤ ⑥ ⑦ ⑧

The cylinder blocks moved by the man were —

- 1 smooth
- 2 black
- 3 dusty
- 4 immense                   ① ② ③ ④

The boy in this poem seems to admire the man because of his —

- 5 age
- 6 goggles
- 7 behavior
- 8 words                   ⑤ ⑥ ⑦ ⑧

STEPS TO FOLLOW

- I. Read each mathematical sentence.
- II. Decide which of these signs will make it true.  
 $>$  is greater than       $=$  is equal to       $<$  is less than
- III. Circle the answer you have chosen.

SAMPLE

$$2 + 4 \bullet 4 + 2 \quad > \textcircled{=} <$$


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$$6 + 8 \bullet 9 + 7 \quad > = <$$

$$14 - 6 \bullet 11 - 4 \quad > = <$$

$$7 \times 3 \bullet 4 \times 5 \quad > = <$$


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$$7 \times 7 \bullet 8 \times 6 \quad > = <$$

$$32 \div 4 \bullet 35 \div 5 \quad > = <$$

$$72 \div 8 \bullet 46 \div 5 \quad > = <$$


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$$(4 \times 9) + 4 \bullet (5 \times 7) + 5 \quad > = <$$

$$(5 \times 9) + 2 \bullet (7 \times 6) + 5 \quad > = <$$

$$\frac{1}{3} \text{ of } 9 \bullet \frac{1}{4} \text{ of } 8 \quad > = <$$

STEPS TO FOLLOW

- I. Work each exercise.
- II. Look at the possible answers beside each problem and see if your answer is here.
- III. If it is, circle the letter beside it.
- IV. If your answer is NOT HERE, circle the letter beside NH.

SAMPLE

$$\begin{array}{r} 25 \\ +73 \\ \hline \end{array} \quad \begin{array}{l} \text{a } 97 \\ \text{b } 88 \\ \text{c } \textcircled{98} \\ \text{d } 89 \\ \text{e } \text{NH} \end{array}$$


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$$\begin{array}{r} 64 \\ +23 \\ \hline \end{array} \quad \begin{array}{l} \text{a } 88 \\ \text{b } 78 \\ \text{c } 77 \\ \text{d } 86 \\ \text{e } \text{NH} \end{array}$$

$$\begin{array}{r} 46 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{l} \text{f } 220 \\ \text{g } 230 \\ \text{h } 240 \\ \text{j } 200 \\ \text{k } \text{NH} \end{array}$$

$$76 + 3 + 67 = \quad \begin{array}{l} \text{a } 136 \\ \text{b } 135 \\ \text{c } 145 \\ \text{d } 146 \\ \text{e } \text{NH} \end{array}$$

$$\begin{array}{r} 413 \\ -348 \\ \hline \end{array} \quad \begin{array}{l} \text{f } 165 \\ \text{g } 175 \\ \text{h } 135 \\ \text{j } 65 \\ \text{k } \text{NH} \end{array}$$

219 ÷ 3 =  
a 79  
b 613  
c 73  
d 13  
e NH

144 ÷ 6 =  
f 22  
g 24  
h 34  
j 20, R4  
k NH

7 × □ = 434  
a 62  
b 3038  
c 58  
d 72  
e NH

532  
× 32  
f 16,924  
g 2660  
h 17,024  
j 17,004  
k NH

15135  
- 8358  
a 6787  
b 6777  
c 6877  
d 6776  
e NH

645  
989  
+878  
f 2512  
g 2511  
h 2392  
j 2513  
k NH

407  
× 30  
f 12,210  
g 12,180  
h 1221  
j 1410  
k NH

$>$	$=$	$<$
is greater than	is equal to	is less than

$3 \times 162 \bullet 4 \times 160 \quad > = <$

$6,000 \div 78 \bullet 6,000 \div 79 \quad > = <$

$\frac{3}{8} \bullet \frac{3}{4} \quad > = <$

$\frac{1}{2} + \frac{1}{2} =$

- a  $\frac{1}{4}$
- b  $\frac{2}{4}$
- c 1
- d  $2\frac{1}{2}$
- e NH

$8\frac{1}{3} - 5 =$

- a  $\frac{1}{3}$
- b  $3\frac{1}{3}$
- c  $5\frac{1}{3}$
- d  $3\frac{2}{3}$
- e NH

$\frac{1}{2}$  of  = 8

- a 4
- b  $8\frac{1}{2}$
- c 10
- d 16
- e NH





1. A belt costs \$4.  
A shirt costs \$5.  
A hat costs \$10.  
How much more does a hat cost than a belt? \_\_\_\_\_
  
2. Bill gave 80¢ to his sister.  
He now has 60¢.  
Pencils cost 10¢ each.  
How many pencils can he buy? \_\_\_\_\_
  
3. Joe started with 40 marbles.  
Marbles cost 3¢ each.  
His father gave him 4 more.  
Then his mother gave him 5 more.  
How many marbles did he have then? \_\_\_\_\_
  
4. Yesterday Ann bought 3 books.  
Books cost 20¢ each.  
Ann has 30¢ left.  
She wants to buy a game that costs 45¢.  
How much more money does she need to buy the game? \_\_\_\_\_

5. There are 32 tablespoons in a pint.  
There are 2 pints in a quart.  
There are 4 quarts in a gallon.  
How many pints are in 5 quarts? \_\_\_\_\_

6. Sue has 12 bottles.  
It takes 36 bottles to fill a case.  
It takes 6 bottles to fill a carton.  
How many cartons can Sue fill? \_\_\_\_\_

7. Peter has \$10.  
He needs 4 pounds of candy.  
Candy is \$2 per pound.  
He is buying candy for 6 people.  
How much will the candy cost altogether? \_\_\_\_\_

8. Joel had 20 seeds for his pet birds.  
He gave each bird the same number of seeds.  
There were no seeds left over.  
How many pet birds did Joel have?  
Give all the possible answers \_\_\_\_\_

$$53 + 8 = \boxed{\phantom{00}}$$

$$3,009 + 3,001 + 3,001 = \boxed{\phantom{0000}}$$

$$542 + 99 = \boxed{\phantom{000}}$$

$$\boxed{\phantom{000}} + 125 = 250$$

$$989 + \boxed{\phantom{000}} = 1,000$$

$$21 \text{ DIVIDED BY } 3 = \boxed{\phantom{00}}$$

$$500 \text{ DIVIDED BY } 2 = \boxed{\phantom{00}}$$

$$700 \text{ DIVIDED BY } 10 = \boxed{\phantom{00}}$$

$$300 \text{ DIVIDED BY } 50 = \boxed{\phantom{00}}$$

$$150 \text{ DIVIDED BY } 25 = \boxed{\phantom{00}}$$

$$800 \text{ DIVIDED BY } \boxed{\phantom{00}} = 200$$

$$\boxed{\phantom{00}} \text{ DIVIDED BY } 3 = 120$$

$$600 \text{ DIVIDED BY } \boxed{\phantom{00}} = 2$$





