Placement Assessment • Making Sense of Rational Numbers

_____ Date ____

Part 1

Solve.

1.
$$\frac{3}{4} + \frac{1}{2}$$

2.
$$\frac{5}{9} - \frac{1}{6}$$

1.
$$\frac{3}{4} + \frac{1}{2}$$
 2. $\frac{5}{9} - \frac{1}{6}$ 3. $\frac{7}{8} \cdot \frac{2}{3}$ _____

4.
$$\frac{3}{5} \div \frac{1}{5}$$

5.
$$9\frac{2}{3} - 7\frac{1}{3}$$

5.
$$9\frac{2}{3} - 7\frac{1}{3}$$
 6. $1\frac{1}{2} + 2\frac{3}{4}$

Part 2

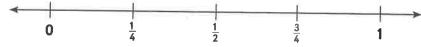
Fill in the table with the equivalent fractions, decimal numbers, or percents in each row.

Problem Number	- Fraction	Decimal Number	Percent
٩.,	<u>4</u> 5	0.8	
10.		0.25	25%
11,	<u>3</u> 4		75%
12,	100	0.01	

Part 3

Find the approximate location on the number line.

Put an X on the number line below to show the approximate location of 0.01.



Put an X on the number line below to show the approximate location of $\frac{2}{3}$.



Put an X on the number line below to show the approximate location of 30%.



Part 4

Place the decimal point in the correct location in each answer.

16. Where should the decimal point be in this answer?

 $2.2 \cdot 0.45 = 990$

17. Where should the decimal point be in this answer?

 $44.2 \div 8.5 = 5 \ 2 \ 0$

Part 5

Write the numbers using scientific notation.

- 18. Write 2.5×10^2 in standard form.
- 19. The number 3,700 is written in scientific notation as $3.7 \times$ ______.

Part 6

Answer the questions about positive and negative integers.

- **20**. -5 and 5 are called _____.
 - (a) reciprocals
 - (b) opposites
 - (c) irrational numbers
- **21**. Which is greater, -9 or -10? _____

Part 7

Solve.

- **22**. -2 + -3 _____
- **23**. -5 -3 _____
- 24. 9.-4 _____
- **25**. −72 ÷ −9 _____

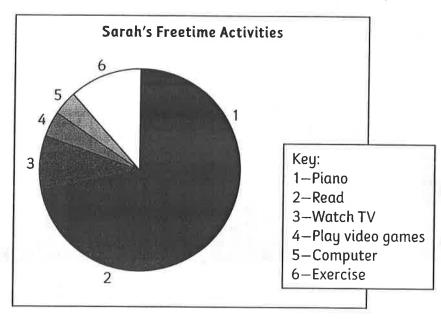
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Part 8

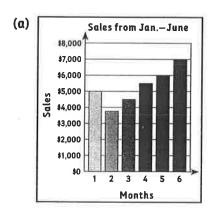
Answer the questions about data and probability.

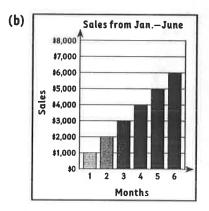
26. About what percent of her free time does Sarah practice piano? _____

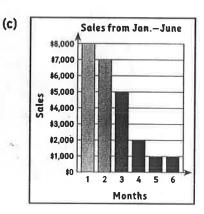


27. Select the graph that best matches the data in the table.

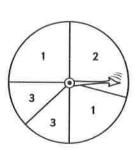
Month	Sales	
Jan.	\$5,000	
Feb.	\$3,700	
March	\$4,600	
April	\$5,500	
May	\$6,000	
June	\$7,000	







- 28. When you spin this spinner, you have the highest probability of landing on which number?
- **29**. Which event is the most likely to happen when rolling two six-sided dice?
 - (a) You will roll a total of 2.
 - (b) You will roll a total of 7.
 - (c) You will roll a total of 12.



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Part 9

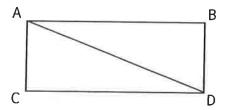
Answer the questions about geometry and measurement.

Which benchmark angle is closest to this angle? _____



- (a) 90° (b) 45° (c) 180°
- 31. The area of the rectangle ABCD below is 18 units².

What is the area of triangle ABD? $___$ units 2



Which shape is not a quadrilateral? ____



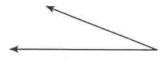
(b)



(d)

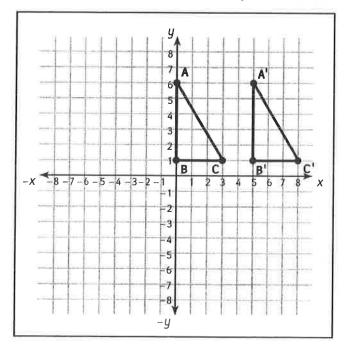


33. The following angle is what type of angle? _____



- (a) acute
- (b) obtuse
- (c) right

Use the following graph to answer questions 34 and 35.



- 34. Which of the vertices of Triangle ABC has the coordinates (3, 1)?
- **35.** What are the coordinates of the vertex C' on the translated triangle? _____

