

Grade 7 Sample Items

1. Evaluate: $\frac{0.25\left(\frac{1}{2} \div \frac{1}{8}\right)}{-2}$

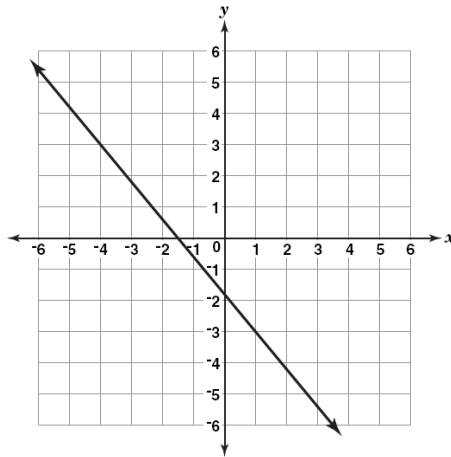
A. $-\frac{1}{8}$

B. $-\frac{1}{2}$

C. -2

D. -8

2. Consider the graph.



Which of the following shows the slope of the line and one point on the line?

A. $\frac{6}{5}$ and (-3, 1)

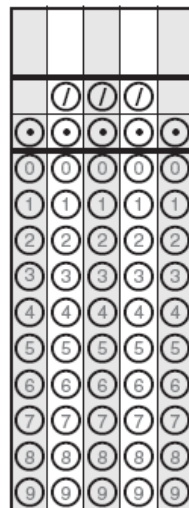
B. $\frac{5}{6}$ and (1, -3)

C. $-\frac{5}{6}$ and (-3, 1)

D. $-\frac{6}{5}$ and (1, -3)

3. Last year, Kim earned \$8 per hour at her job. This year, Kim earns \$10 per hour at her job. What is the percent of increase, in dollars earned per hour, from last year to this year?
- A. 2%
 B. 10%
 C. 20%
 D. 25%
4. Jane is playing a game. The probability of Jane spinning the spinner and it landing on a number less than four is $\frac{3}{8}$. What is the probability of the spinner NOT landing on a number less than four?
- A. $\frac{1}{8}$
 B. $\frac{3}{8}$
 C. $\frac{5}{8}$
 D. $\frac{8}{8}$
5. Square ABCD has a perimeter of 16 feet. What is the perimeter of the square after it is rotated 270° clockwise about point A?
- A. 8 feet
 B. 16 feet
 C. 32 feet
 D. 256 feet

6. Simplify $(3 + 2)^2 - 2^3$.



7. Anita has a map with a scale of $\frac{1}{4}$ inch = 15 miles. Anita measures the distance from her home to her grandmother's home on her map to be 3 inches. What is the distance, in miles, from Anita's home to her grandmother's home?

	/	/	/	
•	•	•	•	•
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

8. Evaluate 4^3 .

	/	/	/	
•	•	•	•	•
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

9. Irene spent half of her weekly allowance playing miniature golf. To earn more money, her parents paid her \$4 to wash their car.

Write an equation that can be used to determine Irene's weekly allowance (a) if she has a total of \$12 after washing the car.

Equation _____

Next week, Irene plans to spend all but \$3 of her allowance to buy 5 bracelets for her friends. Each bracelet costs the same amount of money.

What is the cost of 1 bracelet?

Show All Work

Answer \$ _____

10. Linda sells video game systems at an electronics store. She earns \$80 every week plus \$7 for every video game system that she sells.

Write an expression that represents Linda's weekly earnings given the number of video game systems (v) she sells.

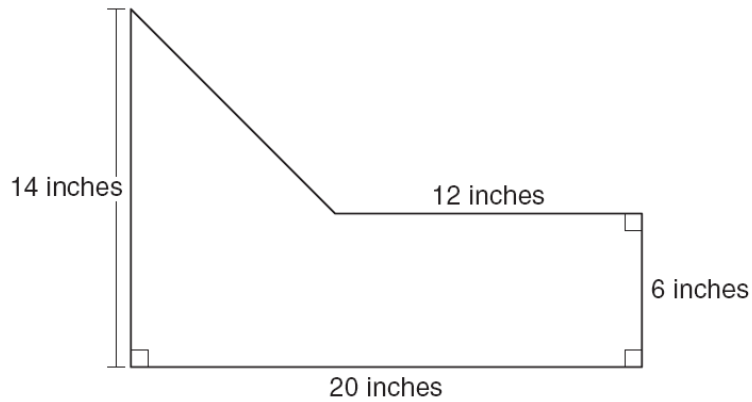
Answer _____

Linda has already saved \$250. Her goal is to have a total of \$600 after working two more weeks. What is the minimum number of video game systems Linda must sell in the next two weeks in order to reach her goal?

Show All Work

Answer _____

11. The diagram below shows the base of a sculpture that Amy made.



Mike made a base that is similar to Amy's base. The dimensions of Mike's base are $\frac{1}{4}$ of the dimensions of Amy's base.

What is the combined area, in square inches, of both bases?

Show All Work

Answer _____ **square inches**