



MATHEMATICS PRACTICE ITEMS

LEVEL A

1. Which expression is equivalent to $(x^2y)^3 \cdot x^3$?

- A. x^5y^3
- B. x^6y^3
- C. x^9y^3
- D. $x^{18}y^3$

2. The lists show the measured heights, in meters, of trees in two different sections of a forest.

Section A: 4.8, 5.0, 5.3, 5.8, 6.1, 6.5, 6.5

Section B: 3.8, 3.8, 5.8, 6.4, 6.6, 6.8, 9.2

Which statement makes a correct conclusion based on the interquartile range of the two data sets?

- A. The trees in Section B most likely have more consistent heights than the trees in Section A.
- B. The trees in Section A most likely have more consistent heights than the trees in Section B.
- C. A randomly selected tree in Section B will most likely be taller than a randomly selected tree in Section A.
- D. A randomly selected tree in Section A will most likely be taller than a randomly selected tree in Section B.

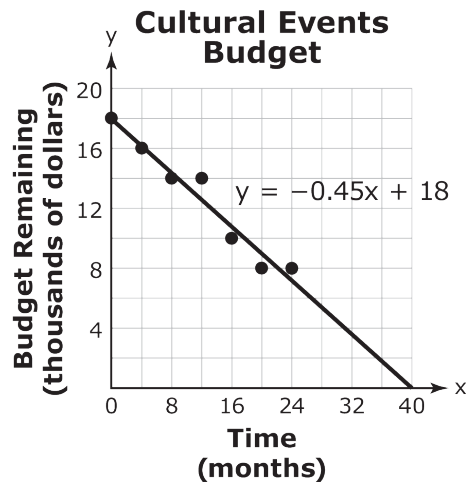


3. A rainwater collection system uses a cylindrical storage tank with a diameter of 50 centimeters and a height of 80 centimeters.

What is the total volume of water, in cubic centimeters, that can be collected?

- A. 12,566 cubic centimeters
- B. 50,000 cubic centimeters
- C. 157,080 cubic centimeters
- D. 251,327 cubic centimeters

4. A county clerk has a given amount of money to budget for cultural events.



Based on the scatterplot, what does the point (0, 18) represent?

- A. the total amount of the budget given to the county
- B. the total amount of the budget spent after 18 months
- C. the average amount spent out of the budget each month
- D. the predicted amount of time after which the entire budget will be spent

5. At an aquarium, researchers are preparing a mixture of salt water. The desired ratio is 90 grams of salt per liter of water.

- 1 ounce = 28.35 grams
- 1 gallon = 3.8 liters

What is the ratio in ounces per gallon?

- A. 0.8 ounces per gallon
- B. 3.2 ounces per gallon
- C. 12.1 ounces per gallon
- D. 23.7 ounces per gallon

6. One of the zeros of $f(x) = x^2 + 2x - 3$ is -3 .

What is the other zero of the function?

Enter your answer in the gridded response area.

/	/	/	/	
.	.	.	.	.
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



TABE 13&14



Mathematics Practice Answer Key

LEVEL A

1. C
2. B
3. C
4. A
5. C
6. 1

