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STUDENT SAMPLE ITEM BOOKLET

Mathematics

Grade 7

MEA
Maine Educational Assessment

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Sample Items

Directions

Read each question and choose the best answer.

1. A store is having a going-out-of-business sale. Each item is on sale for half off m, the regular price. Which pair of equivalent expressions represents the sale price for any one item?

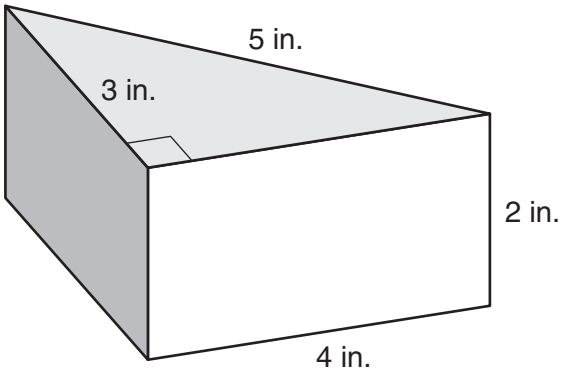
A $0.5m$ and $m - \frac{1}{2}$

B $0.5m$ and $m - \frac{1}{2}m$

C $m - 0.5$ and $m - \frac{1}{2}$

D $m - 0.5$ and $m - \frac{1}{2}m$

2. A piece of cheese is shaped like a right triangular prism.



The **entire** surface of the cheese will be covered with a wax coating. What is the surface area of the piece of cheese?

A 20 sq. in.

B 26 sq. in.

C 32 sq. in.

D 36 sq. in.

GO ON

3. Kevin designed a spinner to use in a probability experiment. The tally chart shows the results for the first 20 spins.

Results of 20 Spins

Red	Blue	Green
𝍸 ||	||||	𝍸 ||||

In his experiment, Kevin will spin the arrow a total of 50 times. Based on the results in the tally chart, how many of the results will **most likely** be "Blue"?

A 6

B 8

C 10

D 12

4. A local dairy sells several different sizes of containers of milk. One of these is a 32-fluid-ounce bottle of chocolate milk.

a. Write an equation that relates the cost, *y*, in dollars, of the bottle of chocolate milk to the price charged per fluid ounce, *x*.

The cost of the bottle of chocolate milk is $2.24.

b. How much money does the dairy charge per fluid ounce of chocolate milk? Show your work or explain how you know.

The dairy sells white milk in three bottle sizes:

- one gallon for $3.09
- half-gallon for $2.09
- one quart for $1.54

Someone buys a gallon, a half-gallon, and a quart of milk.

c. What is the average price per fluid ounce paid by this consumer? Show your work or explain how you know.

GO ON

Use the information below to answer questions 5 and 6.

Penelope won a contest. For her prize, she gets to reach into a bag of envelopes and take one without looking. Each envelope has a cash prize. The bag contains these envelopes:

- 100 envelopes with $10
- 50 envelopes with $50
- 25 envelopes with $100
- 15 envelopes with $200
- 10 envelopes with $500
- 1 envelope with $1,000

5. Penelope thinks she will more likely than not get an envelope containing $10. Which statement **best** explains whether Penelope is correct?

A No, the probability she will get an envelope with $10 is less than 0.5.

B Yes, the probability she will get an envelope with $10 is less than 0.5.

C No, the probability she will get an envelope with $10 is greater than 0.5.

D Yes, the probability she will get an envelope with $10 is greater than 0.5.

6. Penelope claims this expression represents the probability she will get an envelope with at least $500.

$$\frac{10}{100 + 50 + 25 + 15 + 1}$$

Is Penelope's claim true?

A Yes, her claim is true.

B No, she should add 1 to the numerator.

C No, she should add 1 to the numerator and 10 to the denominator.

D No, she should add 1 to the numerator and subtract 1 from the denominator.

STOP