Edulastic

2023-2024 November DCA Math 7

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1 Which expressions are equivalent to $-2\left(2p+10\right)+4p$?
Select **two** answers below.

A -10

B $-4p+(-20)+4p$

C $-20-2p$

D -20

E $-4p\ -20+8p$

2 Which situation can be represented by the equation $1\frac{1}{4}\times 6=7\frac{1}{2}$?

A It took Calvin $1\frac{1}{4}$ hours to run 6 miles. He ran $7\frac{1}{2}$ miles per hour.

B Sara read for $1\frac{1}{4}$ hours every day for 6 days. She read for a total of $7\frac{1}{2}$ hours.

C Matthew addressed $1\frac{1}{4}$ envelopes in 6 minutes. He addressed $7\frac{1}{2}$ envelopes per minute.

D It took Beth $1\frac{1}{4}$ minutes to paint 6 feet of a board. She painted a total of $7\frac{1}{2}$ feet of the board.

3 The scale for a map to actual distance is 2 cm to 100 mi. The driving distance on a map between Gulfport, Mississippi, and Jackson, Mississippi, is 3.2 cm. What is the actual distance, in miles, between Gulfport and Jackson?

A $40\ mi$

B $80\ mi$

C $160\ mi$

D $320\ mi$

4 On Mondays, a coffee shop offers its customers a 25% discount on all coffee purchases. The coffee shop usually charges c dollars for a flavored coffee. The expression below can be used to determine the cost of a flavored coffee on Mondays.

$$c - 0.25c$$

Which expression could also be used to determine the cost of a flavored coffee on Mondays?

(A) $0.25c$

(B) $0.75c$

(C) $1.25c$

(D) $1.75c$

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5 Mr. Pratt spent $165 to attend a college football game.

- Twenty percent of this cost was for a parking pass.
- He spent the remainder of the money on two tickets for the game.

What was the price per ticket?

(A) $\$16.50$

(B) $33.00

(C) $66.00

(D) $82.50

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6 A cell phone company is giving a 20% discount on all phone accessories. Which expressions can be used to find the sale price of an item with an original price of x dollars?

Select the **two** that apply.

[A] $x - 0.2x$

[B] $-20x$

[C] $0.2x$

[D] $100 - 20x$

[E] $0.8x$

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7 Which decimal is equivalent to $\frac{8}{99}$?

(A) 0.080

(B) $0.\overline{08}$

(C) 0.08

(D) $0.\overline{8}$

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8 Tyler solved the following expression:
$\frac{1}{3}(9 - 12x) - 4x$

Step 1: $\left(\frac{1}{3}\right)\left(\frac{9}{1}\right) - \left(\frac{1}{3}\right)\left(\frac{12}{1}x\right) - 4x$
Step 2: $3 - 4 - 4x$
Step 3: $-1 - 4x$

However Tyler did not have the correct answer. Identify Tyler's mistake.

(A) He multiplied the fractions incorrectly.

(B) He forgot to multiply $\frac{1}{3}$ by $-4x$.

(C) He forgot to bring down the x when he multiplied $\left(\frac{1}{3}\right)\left(\frac{12}{1}x\right)$

(D) He subtracted $3 - 4$ incorrectly.

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9 Which equation is true?

(A) $\frac{5}{8} = -\left(\frac{-5}{-8}\right)$

(B) $\frac{-3}{-4} = -\frac{3}{4}$

(C) $-\left(\frac{12}{-17}\right) = \frac{12}{17}$

(D) $\frac{9}{-13} = -\left(\frac{-9}{13}\right)$

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10 A square has a perimeter of $12x + 2$. What is the lenth of one side?

(A) $10x$

(B) $14x$

(C) $3x + \frac{1}{2}$

(D) $3x + 2$

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11 A scale drawing of a rectanguler park is shown below.

The scale is $1\ cm = 25\ m$.
Which statement explains how to find the actual dimensions of the park in meters?

(A) Add 25 to each dimenson of the rectangle in the scale drawing.

(B) Multiply each dimension of the rectangle in the scale drawing by 1.

(C) Multiply each dimension of the rectangle in the scale drawing by 25.

(D) Add 25 to the product of the dimensions of the rectangle in the scale drawing.

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12 Use the expression below to answer the question.
$(2t - 8) - \frac{1}{2}(9 - 4t) + \frac{5}{2}$
Which expression is equivalent to the one shown?

(A) $-2t - 1$

(B) $-2t - 10$

(C) $4t - 1$

(D) $4t - 10$

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13 A scale drawing of a billboard shows a rectangle with a length of $10\ in$ and a width of $5\ in$. The area of the real billboard is $200\ square\ feet$. What is the scale factor used to make the drawing?

(A) $1\ in\ =\ 1ft$

(B) $1\ in\ =\ 2ft$

(C) $1\ in\ =\ 4ft$

(D) $1\ in\ =\ 12\ ft$

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14 The width of a rectangle is $\frac{2}{3}$ of the length. What is the perimeter of the rectangle when the width is 12 inches?

(A) $18\ in$

(B) $24\ in$

(C) $30\ in$

(D) $60\ in$

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15 Melissa uses $\frac{1}{3}$ cup of raisins to make 3 cups of trail mix. Using the same proportion, how many cups of raisins would Melissa need to make 12 cups of trail mix?

(A) $1\frac{1}{3}$

(B) $2\frac{2}{3}$

(C) $3\frac{1}{3}$

(D) $4\frac{2}{3}$

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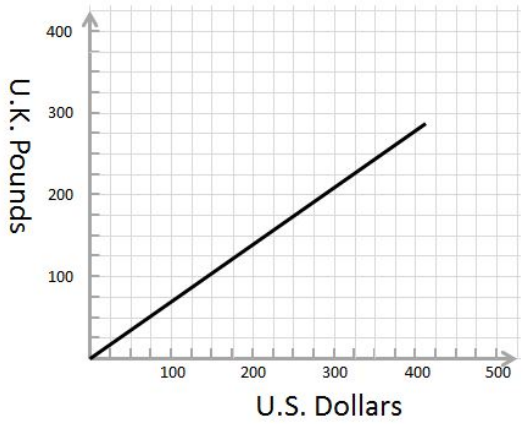
16 The point (200, 150) lies on the graph.

Which equation matches the graph below?



(A) $y = 75x$

(B) $x = \frac{3}{4}y$

(C) $x = 75y$

(D) $y = \frac{3}{4}x$

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17 Jamie's paycheck was $\$482.60$. She put $\frac{3}{10}$ of her paycheck into a savings account and $\frac{1}{2}$ of what was left to pay bills. How much money does Jamie have left from her paycheck after putting money into her savings account and paying bills? (Type your answer as a decimal.)

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18 Your grade on a mathematics quiz was a 95%. There were 60 points on the quiz. How many points did you get?

(A) 55 points

(B) 57 points

(C) 58 points

(D) 59.05 points

Answer Key of 2023-2024 November DCA Math 7

1. B, D
2. B
3. C
4. B
5. C
6. E, A
7. B
8. C
9. C
10. C
11. C
12. D
13. C
14. D
15. A
16. D
17. Tech Enhanced Item
    ;
    Tech Enhanced Item
18. B