

EOCT Practice

Of the 410 visitors at the museum on Saturday, 164 are students. What percent of the visitors are NOT students?

- A. 30%
- B. 40%
- C. 50%
- D. 60%

EOCT Practice

Tim tosses three nickels on the ground. What is the probability that all three will show “heads”?

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

B. $\frac{3}{8}$

C. $\frac{1}{2}$

D. $\frac{8}{27}$

EOCT Practice

What is the slope of a line perpendicular to the line passing through the points (3, 6) and (5, 1)?

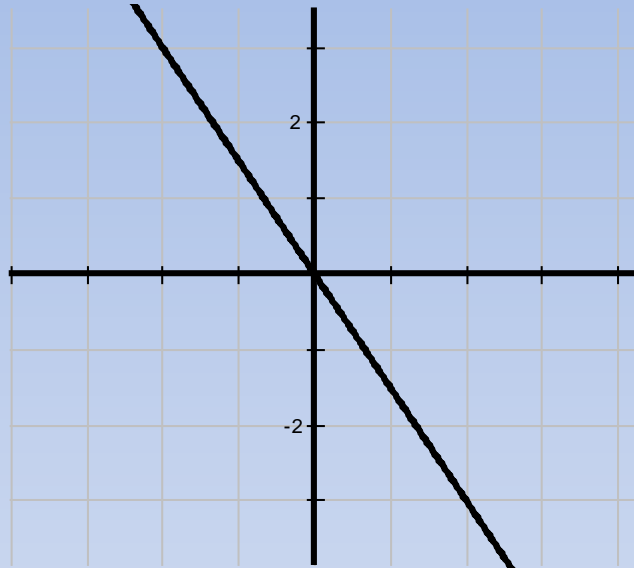
A. $-\frac{5}{2}$

B. $-\frac{4}{3}$

C. $-\frac{3}{4}$

D. $\frac{2}{5}$

What is the slope of a line parallel to a line having slope $-\frac{3}{2}$?



A. -6

B. $-\frac{3}{2}$

C. $-\frac{2}{3}$

D. $\frac{2}{3}$

EOCT Practice

George has scores of 76, 78, 79, and 67 on four history tests. What is the lowest score George can have on the fifth test to have an average score of 80?

A. 85

B. 90

C. 95

D. 100

EOCT Practice

Susan rolls three six-sided dice at the same time. What is the probability that all three dice come up 6?

A. $\frac{1}{648}$

B. $\frac{1}{216}$

C. $\frac{1}{72}$

D. $\frac{1}{36}$

EOCT Practice

Lisa's exam scores for history are listed below.
What is her average score for the tests?

Test 1 95

Test 2 105

Test 3 80

A. 91

B. 92

C. 93

D. 100

EOCT Practice

The sum of two numbers is fourteen. The sum of six times the smaller number and two equals four less than the product of three and the larger number. Find the two numbers.

A. 6 and 8

B. 5 and 9

C. 3 and 11

D. 4 and 10

EOCT Practice

In an basketball shooting contest, which of the following players has the lowest percentage of shots made?

- A. Erica makes 2 out of 7 shots.
- B. Greg makes 60% of his shots.
- C. Bob makes $\frac{3}{8}$ of his shots.
- D. Kent makes 5 out of 8 shots.

EOCT Practice

Solve:
$$\frac{3x + 6}{-2} > -12$$

- A. $x < 24$
- B. $x > 0$
- C. $x > 6$
- D. $x < 6$

EOCT Practice

Solve for x:

$$2(x + 5) + 4(2x - 1) = -14$$

A. $x = -2$

B. $x = -1$

C. $x = -1\frac{4}{5}$

D. $x = -1\frac{1}{5}$

EOCT Practice

Mary owns a cat named Snoopy. She reaches into her bag of 4 fish, 6 liver, 3 chicken-flavored, and 10 milk treats and gives one to Snoopy without looking. What is the probability that Snoopy gets a liver treat?

A. $\frac{1}{6}$

B. $\frac{6}{17}$

C. $\frac{6}{23}$

D. $\frac{1}{23}$

EOCT Practice

Solve: $7 - \left(\frac{3}{4}\right)^2$

A. $6\frac{1}{4}$

B. $4\frac{3}{4}$

C. $6\frac{7}{16}$

D. $5\frac{1}{2}$

EOCT Practice

Solve:

$$-6 - x > 7$$

- A. $x > -13$
- B. $x < 13$
- C. $x < -13$
- D. $x > 13$

EOCT Practice

There are three brothers. Fernando is two years older than Pedro. Pedro is two years older than Samuel. Together their ages add up to 63 years. How old is Samuel?

- A. 17
- B. 19
- C. 21
- D. 23

EOCT Practice

Which of the following is a number which, when squared, results in a number less than itself?

A. 4^2

B. 4^{-2}

C. 4

D. $-\frac{1}{4}$

EOCT Practice

What transformation of the graph occurs when the graph $y = x - 1$ is changed to $y = 3x - 1$?

- A. The graph shifts down 2 units.
- B. The graph shifts up 2 units.
- C. The slope decreases.
- D. The slope increases.

EOCT Practice

What is the reciprocal of -52?

A. $-\frac{1}{52}$

B. $\frac{1}{52}$

C. 26

D. 52

EOCT Practice

Simplify: $(2x)^{-4}$

A. $\frac{1}{2x^4}$

B. $\frac{1}{16x^4}$

C. $\frac{2}{x^4}$

D. $2x^4$

EOCT Practice

Simplify: $\frac{(3a^2)^3}{a^3}$

A. $27a^3$

B. $\frac{9a^6}{a^3}$

C. $9a^3$

D. $\frac{3a^6}{a^3}$

EOCT Practice

The Rockbottom Blues Band charges a \$300 set up fee plus \$175 per hour (h) that they play. Which statement represents the total cost (c) for hiring the band?

A. $c = 175 + 300h$

B. $c = (175 + 300)h$

C. $c = 300 + 175h$

D. $c = 300 + 175 + h$

EOCT Practice

To make a disinfecting solution, Alana mixes 2 cups of bleach with 5 cups of water. What is the ratio of bleach to the total amount of disinfecting solution?

A. 2 to 3

B. 2 to 5

C. 2 to 7

D. 2 to 10

EOCT Practice

If 60 students eat 24 pizzas, which proportion below may be used to find the number of pizzas required to feed 15 students?

A. $\frac{60}{24} = \frac{15}{x}$

B. $\frac{60}{24} = \frac{x}{15}$

C. $\frac{60}{15} = \frac{x}{24}$

D. $\frac{60}{x} = \frac{15}{24}$

EOCT Practice

Translate “eighty-four less than the product of six and seven” into an algebraic expression.

A. $(6 \cdot 7) - 84$

B. $(6 \cdot 7)(-84)$

C. $84 - (6 \cdot 7)$

D. $84 \cdot (-6 + 7)$

EOCT Practice

Solve: $2(5x - 3) - 6x = 2$

A. $-\frac{1}{4}$

B. $1\frac{1}{4}$

C. 1

D. 2

EOCT Practice

If $3x + 4y = 9$, then x equals

A. $3 - 4y$

B. $9 - 4y$

C. $\frac{9 + 4y}{3}$

D. $\frac{9 - 4y}{3}$

EOCT Practice

The elevation of Port Alice is 10 meters. The elevation of Mount Barbara is 960 meters. It is 100 km from Port Alice to Mount Barbara. Which expression below represents the average increase in elevation (meters per km) from Port Alice to Mount Barbara?

A. $\frac{960}{100 - 10}$

B. $\frac{100-10}{960}$

C. $\frac{960 - 10}{100}$

D. $\frac{960 - 100}{10}$

EOCT Practice

Justin records the weights of 6 wrestlers.
Their weights, in kilograms, are given below.

66, 97, 52, 53, 76, 105

What is the median weight of the 6 wrestlers?

A. 52.5 kilograms

B. 71.0 kilograms

C. 85.5 kilograms

D. 86.5 kilograms

EOCT Practice

14.2 is the same as

A. $\frac{142}{100}$

B. $14\frac{1}{50}$

C. $14\frac{1}{5}$

D. $14\frac{1}{10}$

EOCT Practice

Solve $y^2 - 4y - 12 = 0$

A. $(2, -6)$

B. $(3, -4)$

C. $(-2, 6)$

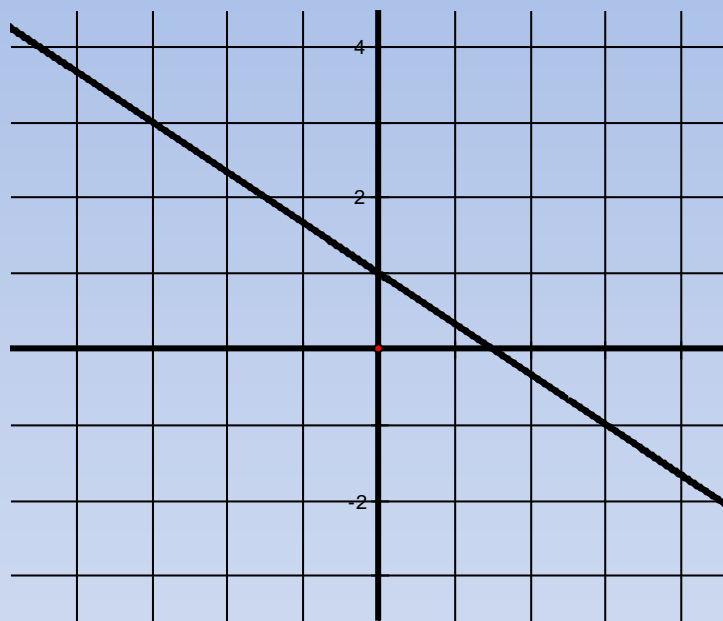
D. $(-3, 4)$

EOCT Practice

Use correct order of operations to evaluate the following expression: $4(4x - 3)^2$

- A. $16x^2 - 24x + 9$
- B. $400x^2 - 225$
- C. $80x - 45$
- D. $64x^2 - 96x + 36$

What is the slope of the equation graphed below?



A. $\frac{2}{3}$

B. $\frac{3}{2}$

C. $-\frac{2}{3}$

D. $-\frac{3}{2}$

EOCT Practice

$\sqrt{6}$ is between

- A. 5 and 6
- B. 2 and 3
- C. 4 and 5
- D. 3 and 4

EOCT Practice

If $x = -3$, find $3x^2 - 5x$

- A. 12
- B. -6
- C. 42
- D. 3

EOCT Practice

Boyle's Law is stated by the formula

$$P_1 V_1 = P_2 V_2$$

Find V_1 when $P_1 = 110$, $P_2 = 50$, and $V_2 = 440$.

- A. 110
- B. 200
- C. 220
- D. 21,890

EOCT Practice

Simplify $4^2 + 8 - 3(8 - 2) + 11$

A. 237

B. 137

C. 17

D. 42

EOCT Practice

Solve for a: $-4a - 12 = -36$

- A. 6
- B. -6
- C. 12
- D. -12

EOCT Practice

Simplify $20 \div 2 - 3^2 - (-2)^2$

A. 24

B. 16

C. 5

D. -3

EOCT Practice

Find $(4y^4 + 2y^2 + 7) + (2y^3 + 5y^2 - 4)$

A. $4y^4 + 2y^3 + 7y^2 + 3$

B. $4y^4 + 4y^3 + 5y^2 + 3$

C. $8y^7 + 10y^4 - 28$

D. $8y^{12} + 10y^4 + 3$

EOCT Practice

Choose the ordered pair that is a solution of $3x - 2y = 8$.

A. $(-4, -2)$

B. $(2, 1)$

C. $(8, 6)$

D. $(2, -1)$

E. $(-2, -8)$

EOCT Practice

Find $(-3a^2 + 8a - 2) - (-4a^2 - 2a + 6)$

A. $a^2 + 10a - 8$

B. $-7a^2 + 6a + 4$

C. $12a^4 - 16a^2 - 12$

D. $a^2 + 6a - 8$

EOCT Practice

Multiply: $(7x^4y^3)(2x^3y^5)$

A. $14x^{12}y^{15}$

B. $9x^7y^8$

C. $9x^{12}y^{15}$

D. $14x^7y^8$

EOCT Practice

Find $(4y^3 - 8y^2 - 5y) - (2y^3 - 5y - 6)$

A. $2y^3 - 8y^2 - 6$

B. $2y^3 - 8y^2 - 10y + 6$

C. $6y^3 - 3y^2 - 10y - 6$

D. $2y^3 - 8y^2 + 6$

EOCT Practice

Wayne takes two markers at random from a box containing 3 red markers, 2 blue markers, and 4 black markers. What is the probability that he will get two red markers?

A. $\frac{1}{12}$

B. $\frac{1}{9}$

C. $\frac{2}{9}$

D. $\frac{1}{2}$

EOCT Practice

Solve for x: $\frac{6x - 40}{2} = 4$

- A. 6
- B. $\frac{32}{6}$
- C. 8
- D. $7 \frac{1}{3}$

EOCT Practice

Which ordered pair is a solution for the following system of equations?

$$-3x + 7y = 25$$

$$3x + 3y = -15$$

A. $(-13, -2)$

B. $(-6, 1)$

C. $(-3, -2)$

D. $(-20, -5)$

EOCT Practice

If the equation below were graphed, which of the following points would lie on the line?

$$4x + 7y = 56$$

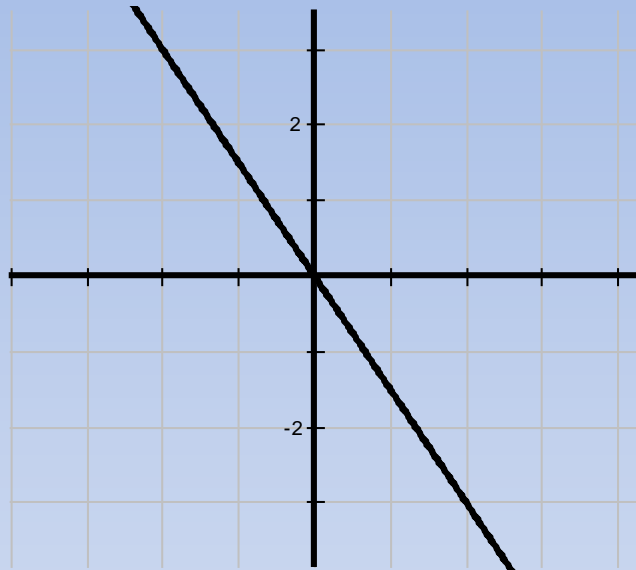
A. (7, 4)

B. (0, 14)

C. (8, 0)

D. (4, 7)

What is the equation of the line graphed below?



A. $y = -\frac{2}{3}x$

B. $y = -\frac{3}{2}x + 1$

C. $y = -\frac{2}{3}x + 1$

D. $y = -\frac{3}{2}x$

EOCT Practice

What is the slope of a line parallel to the line passing through the points $(3, 6)$ and $(5, 1)$?

A. $-\frac{5}{2}$

B. $-\frac{4}{3}$

C. $-\frac{3}{4}$

D. $\frac{2}{5}$

EOCT Practice

What is the equation of the line that includes the point $(3, -1)$ and has a slope of 2?

A. $y = -2x - 7$

B. $y = 2x - 2$

C. $y = 2x + 7$

D. $y = 2x - 7$

EOCT Practice

Solve for x:

$$2(x + 5) - 4(2x - 1) = 14$$

A. $x = -2$

B. $x = -1$

C. $x = 0$

D. No solution

EOCT Practice

Mary owns a cat named Snoopy. She reaches into her bag of 4 fish, 6 liver, 3 chicken-flavored, and 10 milk treats and gives one to Snoopy without looking. What are the odds that Snoopy gets a liver treat?

A. 1 to 6

B. 6 to 17

C. 6 to 23

D. 1 to 23

EOCT Practice

Jerry had k pencils. Darcy and Leonard then gave Jerry an additional x pencils each. Which expression could represent the number of pencils Jerry has now?

A. $k + x$

B. $k + 2x$

C. $2k + x$

D. $2(k + x)$

EOCT Practice

What is the value of y in the following system of equations?

$$2x + 3y = 4$$

$$3x + 4y = 5$$

A. -3

B. -1

C. 1

D. 2