

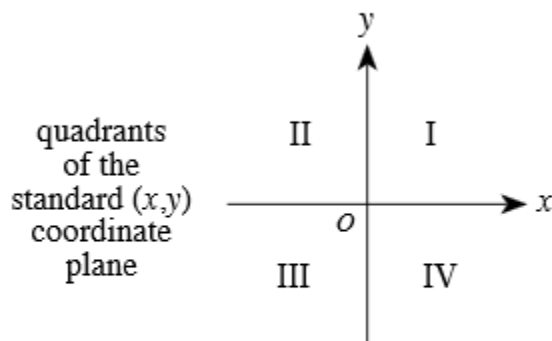
Titan Learning Center
Mathematics ACT Prep
Set B-Week 7

Solve each problem, circling the correct answers. Remember that figures are not necessarily drawn to scale.

1. $(a + 2b + 3c) - (4a + 6b - 5c)$ is equivalent to:

- A. $-4a - 8b - 2c$
- B. $-4a - 4b + 8c$
- C. $-3a + 8b - 2c$
- D. $-3a - 4b - 2c$
- E. $-3a - 4b + 8c$

2. What are the quadrants of the standard (x,y) coordinate plane below that contain points on the graph of the equation $4x - 2y = 8$?



- A. I and III only
- B. I, II, and III only
- C. I, II, and IV only
- D. I, III, and IV only
- E. II, III, and IV only

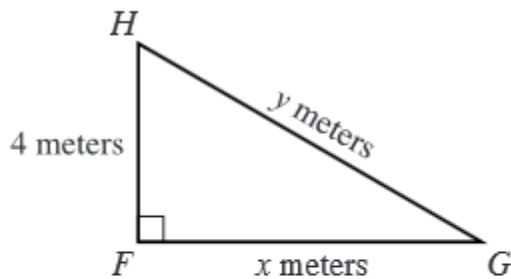
3. The sides of a square are 3 cm long. One vertex of the square is at $(2,0)$ on a square coordinate grid marked in centimeter units. Which of the following points could also be a vertex of the square?

- F. $(-4, 0)$
- G. $(0, 1)$
- H. $(1, -1)$
- J. $(4, 1)$
- K. $(5, 0)$

4. A bag contains 12 red marbles, 5 yellow marbles, and 15 green marbles. How many additional red marbles must be added to the 32 marbles already in the bag so that the probability of randomly drawing a red marble is $\frac{3}{5}$?

- F. 13
- G. 18
- H. 28
- J. 32
- K. 40

5. For $\triangle FGH$, shown below, which of the following is an expression for y in terms of x ?



- A. $x + 4$
- B. $\sqrt{x^2 + 4}$
- C. $\sqrt{x^2 + 8}$
- D. $\sqrt{x^2 - 16}$
- E. $\sqrt{x^2 + 16}$

TLC Stamp

