

Name:

5-a-day ACT prep #3

Solve each problem, show your work, and then choose the correct answer.

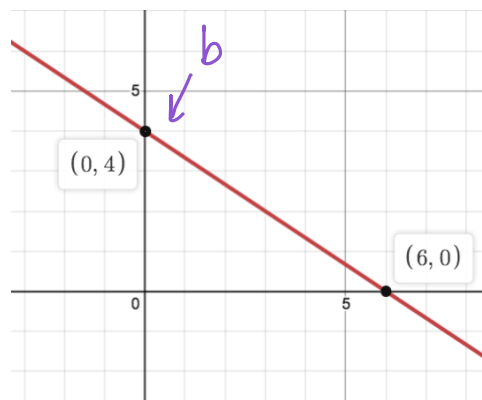
Do not linger over problems that take too much time. Solve as many as you can; then return to the others in the time you have left for this test.

You are permitted to use a calculator on this test. You may use your calculator for any problems you choose, but some of the problems may best be done without using a calculator.

Note: Unless otherwise stated, all of the following should be assumed.

1. Illustrative figures are NOT necessarily drawn to scale.
2. Geometric figures lie in a plane.
3. The word *line* indicates a straight line.
4. The word *average* indicates arithmetic mean.

1. What is the equation of the line shown?



- A. ~~$y = 4x + 6$~~
 B. ~~$y = 6x + 4$~~
 C. $y = -\frac{2}{3}x + 4$
 D. ~~$y = -\frac{2}{3}x + 6$~~
 E. ~~$y = \frac{2}{3}x + 6$~~

2. Craig packed 3 pairs of shorts, 4 shirts, and 2 pairs of shoes for his summer vacation. How many different outfits can he make with one pair of shorts, one shirt, and 1 pair of shoes?

- A. 3
 B. 9
 C. 12
 D. 24
 E. 72

$3 \cdot 4 \cdot 2 = 24$

3. Evaluate the expression $|x - 7|$ when $x = 3$.

- A. -10
 B. -4
 C. 4
 D. 10
 E. 21

$$|3 - 7| = |-4| = 4$$

4. What is the value of x in the equation $2x + 5 = 3(x - 2)$?

- A. -11
 B. -1
 C. $\frac{11}{5}$
 D. $-\frac{11}{5}$
 E. 11

$$2x + 5 = 3x - 6$$

$$11 = x$$

5. If 12 donuts cost \$15.00, what is the cost of one donut?

- A. \$0.80
 B. \$1.20
 C. \$1.25
 D. \$1.33
 E. \$1.50

$$\frac{15}{12}$$