

Name:

5-a-day ACT prep #4

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

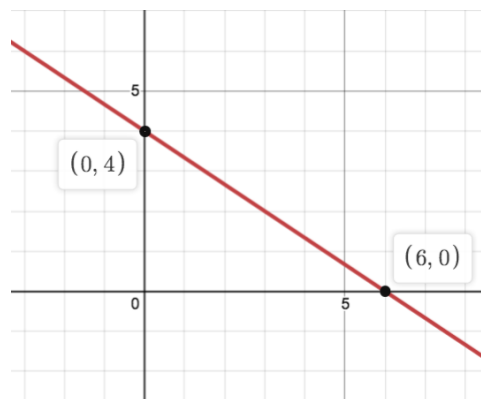
Do not linger over problems that take too much time. Solve as many as you can; then return to the others in the time you have left for this test.

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.  $2x + 3y = 12$
- B.  $4x + 6y = -24$
- C.  $6x - 4y = 12$
- D.  $2x - 3y = -12$
- E.  $4x - 6y = 24$

2.  $(3x^2 + 5x - 1) - (x^2 - 2x - 3)$  is equivalent to:

- A.  $2x^2 + 3x - 4$
- B.  $2x^2 + 3x - 2$
- C.  $2x^2 + 7x + 2$
- D.  $4x^2 + 3x - 4$
- E.  $4x^2 + 7x + 2$

3. Evaluate the expression  $x^2 - 2x$  when  $x = -3$ .

- A.  $-15$
- B.  $-3$
- C.  $3$
- D.  $6$
- E.  $15$

4. What is the value of  $x$  in the equation  $4\frac{2}{3} = x + 3\frac{4}{5}$ ?

- A.  $\frac{3}{4}$
- B.  $\frac{13}{15}$
- C.  $1\frac{4}{15}$
- D.  $1\frac{1}{2}$
- E.  $1\frac{3}{4}$

5. On the number line, what is the midpoint of  $-3$  and  $15$ ?

- A.  $3$
- B.  $6$
- C.  $9$
- D.  $12$
- E.  $18$