

Practice 18.3

Name _____

Solve the equation.

1) $(7x + 4)^2 = 15$

Solve the formula for the specified variable.

2) $A = 3\pi a^2$ for a

3) $Ve = \frac{1}{2}mv^2$ for v

Find the term that should be added to the expression to form a perfect square trinomial. Write the resulting perfect square trinomial in factored form.

4) $x^2 - 14x$

Solve the equation by completing the square.

5) $x^2 + 14x + 35 = 0$

6) $x^2 + 5x - 5 = 0$

7) $3x^2 = -10x - 4$

8) $x^2 = 5 - 6x$

Solve the quadratic equation by any method.

9) $\frac{4}{9}x^2 - \frac{4}{3}x = -1$

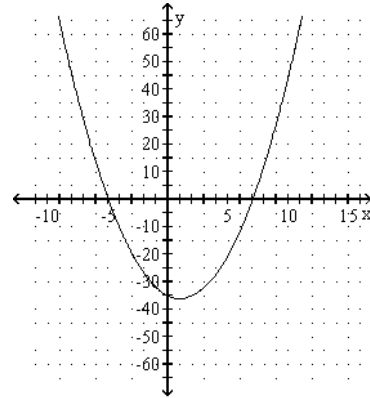
10) $3x(x - 1) = 10$

Solve the problem.

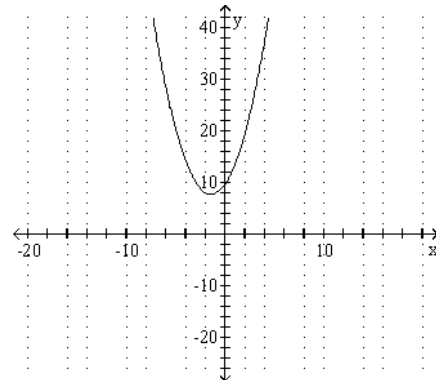
- 11) The position of an object moving in a straight line is given by $s = 2t^2 - 3t$, where s is in meters and t is the time in seconds the object has been in motion. How long will it take the object to move 17 meters?

The graph of $ax^2 + bx + c$ is given. Use this graph to solve $ax^2 + bx + c = 0$, if possible.

12)



13)



Answer Key

Testname: WKS_18.3

1) $\frac{-4 \pm \sqrt{15}}{7}$

2) $a = \pm \sqrt{\frac{A}{3\pi}}$

3) $v = \pm \sqrt{\frac{2Ve}{m}}$

4) $49; (x - 7)^2$

5) $-7 \pm \sqrt{14}$

6) $\frac{-5 \pm 3\sqrt{5}}{2}$

7) $\frac{-5 \pm \sqrt{13}}{3}$

8) $-3 \pm \sqrt{14}$

9) $\frac{3}{2}$

10) $\frac{3 \pm \sqrt{129}}{6}$

11) 3.8 sec

12) -5, 7

13) No real solutions