

Worksheet 3.1 -3.2A

Solve each equation by graphing.

1) $m^2 + 4m - 32 = 0$

2) $v^2 - 12v - 13 = 0$

3) $n^2 + 10n - 50 = 0$

4) $v^2 - 12v + 20 = 0$

5) $m^2 + 16m - 17 = 0$

6) $x^2 + 12x + 20 = 0$

Solve each equation by taking square roots.

7) $x^2 + 1 = 55$

8) $p^2 + 2 = 56$

9) $x^2 - 3 = 6$

10) $r^2 - 8 = -4$

11) $2r^2 = 54$

12) $v^2 - 2 = 58$

Solve each equation by factoring.

13) $x^2 - 12 = x$

14) $x^2 - 25 = 0$

15) $n^2 - 4n = 21$

16) $n^2 - 5 = 4n$

17) $2x^2 - 21 = -11x$

18) $2n^2 + 3n = 0$

Simplify.

19) $\sqrt{-36}$

20) $\sqrt{-48}$

21) $\sqrt{-18}$

22) $\sqrt{-75}$

23) $2\sqrt{-8}$

24) $3\sqrt{-12}$

$$25) (3+2i)+(6-5i)$$

$$26) (-2+5i)+(7-3i)$$

$$27) (-3+8i)-(4+5i)$$

$$28) (2-6i)-(5-9i)$$

$$29) (2-3i)(4-5i)$$

$$30) (1+4i)(3-2i)$$

$$31) (2 - 3i)^2$$

$$32) (3 + 4i)^2$$

Find all roots.

$$33) x^2 + 24 = 0$$

$$34) x^2 + 54 = 0$$

$$35) 2x^2 + 90 = 0$$

$$36) 3x^2 + 54 = 0$$

$$37) 3x^2 + 48 = 0$$

$$38) 2x^2 + 100 = 0$$