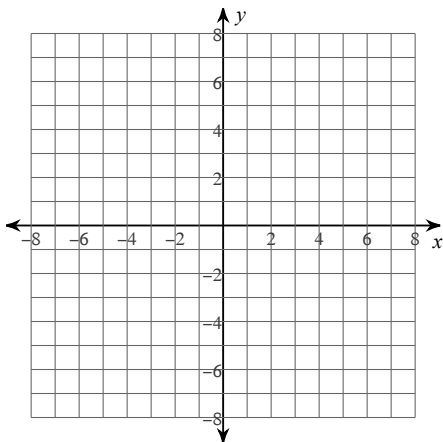


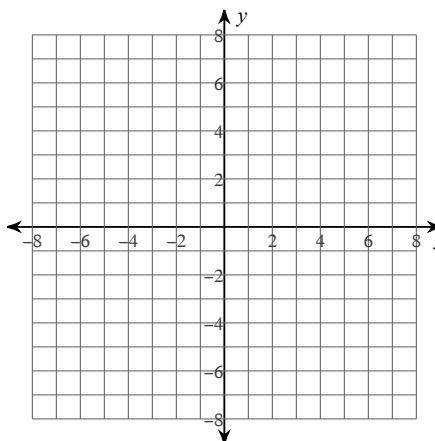
Finding Zeros - Graphing & Square Roots

Use desmos to sketch each graph. Then find the zeros of the function.

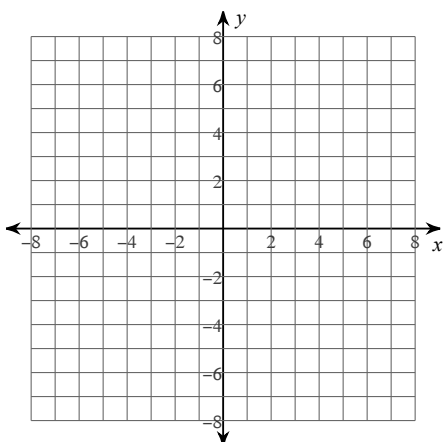
$$1) y = \frac{1}{2}x^2 - 3x$$



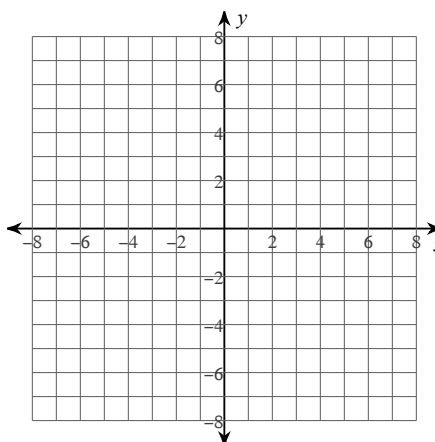
$$2) y = 2x^2 - 22x + 56$$



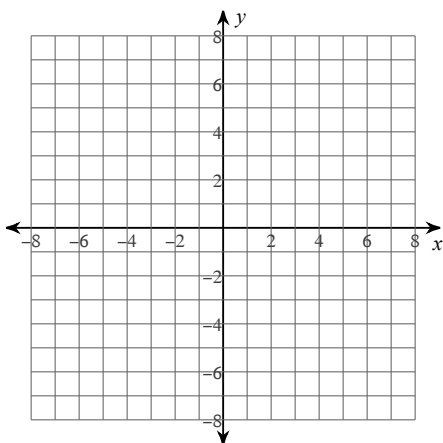
$$3) y = -x^2 - 6x - 8$$



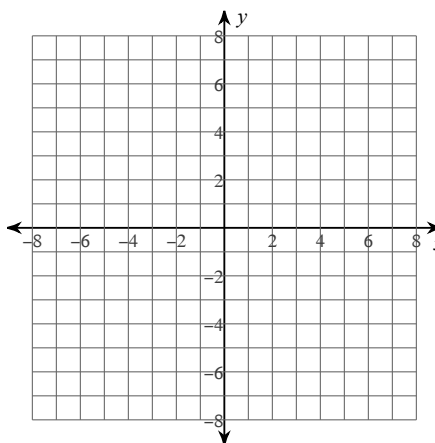
$$4) y = -x^2 - 4x - 3$$



$$5) y = 2x^2 - 14x + 20$$



$$6) y = -x^2 + 4x - 5$$



Solve each equation by taking square roots.

7) $10n^2 + 1 = 161$

8) $5n^2 - 7 = 118$

9) $4x^2 - 9 = -8$

10) $25x^2 + 4 = 104$

11) $4x^2 - 2 = 47$

12) $2b^2 - 9 = 29$

13) $4n^2 - 10 = 162$

14) $4n^2 - 4 = 212$

Factor each completely.

15) $m^2 - 7m - 30$

16) $p^2 + 8p - 9$

17) $5k^2 + 41k - 36$

18) $7a^2 + 27a - 40$