

Determine the x-intercepts of each of the following functions by factoring, taking square roots, or the quadratic formula. Round to the nearest hundredth, as needed, and write answers as ordered pairs. State the method you used.

<p>11. <math>f(x) = 3x^2 + 4</math> Square Roots!</p> $0 = 3x^2 + 4$ $\frac{-4}{3} = \frac{3x^2}{3}$ $\sqrt{x^2} = \sqrt{\frac{-4}{3}}$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-top: 10px;"> <p>No x-int!</p> </div>	<p>12. <math>f(x) = 13x^2 - 26x</math> Factoring</p> $0 = 13x^2 - 26x$ $0 = 13x(x - 2)$ $x = 0 \quad x = 2$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-top: 10px;"> <p>(0, 0) (2, 0)</p> </div>
<p>13. <math>f(x) = x^2 + 8x + 7</math> Factoring</p> $0 = x^2 + 8x + 7$ $0 = (x + 7)(x + 1)$ $x = -7 \quad x = -1$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-top: 10px;"> <p>(-7, 0) (-1, 0)</p> </div>	<p>14. <math>f(x) = 2(x - 1)^2 - 8</math> Square Roots</p> $0 = 2(x - 1)^2 - 8$ $8 = 2(x - 1)^2$ $\sqrt{4} = \sqrt{(x - 1)^2}$ $\pm 2 = x - 1$ $1 \pm 2 = x$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-top: 10px;"> <p><math>x = 3</math>      <math>x = -1</math></p> </div>
<p>15. <math>y = 2x^2 - 9x + 5</math> Quad. Formula</p> $x = \frac{9 \pm \sqrt{(-9)^2 - 4(2)(5)}}{2(2)}$ $x = \frac{9 \pm \sqrt{41}}{4}$ $x = \frac{9 \pm 6.40}{4}$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-top: 10px;"> <p><math>x = 3.85</math>      <math>x = 0.65</math></p> </div>	<p>16. <math>f(x) = 8x^2 - 18</math> Factoring</p> $0 = 2(4x^2 - 9)$ $0 = 2(2x + 3)(2x - 3)$ $0 = 2x + 3 \quad 0 = 2x - 3$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-top: 10px;"> <p><math>x = -\frac{3}{2}</math>      <math>x = \frac{3}{2}</math></p> </div>