

12.4 Quadratic Formula

Corrective Assignment

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

NAME: _____

DATE: _____

Express in decimal form. (Round to the nearest hundredth)

1. $\frac{7 \pm \sqrt{378}}{4}$

2. $\frac{-9 \pm \sqrt{561}}{8}$

3. $\frac{3 \pm \sqrt{225}}{12}$

Express in simplest radical form.

4. $\frac{12 \pm \sqrt{272}}{4}$

5. $\frac{6 \pm \sqrt{540}}{8}$

6. $\frac{-4 \pm \sqrt{324}}{2}$

Solve each equation using the quadratic formula. Express answer as a decimal and simplest radical form!

7. $2x^2 - 2x - 24 = 0$

8. $7k^2 - 11k - 3 = 0$

9. $13 = 2n^2 - 3n$

10. $12m^2 - 10m = -1$

11. $10x^2 + 8 = -3x$

12. $3r^2 = 10r + 16$

13. $-4 = b^2 + 3b - 92$

14. $3 = 4n^2 + 8n + 5$

ANSWERS TO CORRECTIVE ASSIGNMENT 12.4

1. -3.11 and 6.61	2. -4.09 and 1.84	3. -1 and 1.5
4. $3 \pm \sqrt{17}$	5. $\frac{3}{4} \pm \frac{3\sqrt{15}}{4}$	6. -11 and 7
7. $x = \frac{2 \pm \sqrt{196}}{4} = \frac{2+14}{4}$ and $\frac{2-14}{4}$ 4 and -3	8. $k = \frac{11 + \sqrt{205}}{14}$ and $\frac{11 - \sqrt{205}}{14}$ 1.81 and -0.24	9. $n = \frac{3 + \sqrt{113}}{4}$ and $\frac{3 - \sqrt{113}}{4}$ 3.14 and -1.91
10. $m = \frac{10 \pm \sqrt{52}}{24} = \frac{5}{12} + \frac{\sqrt{13}}{12}$ and $\frac{5}{12} - \frac{\sqrt{13}}{12}$ 0.72 and 0.12	11. No Solution	12. $r = \frac{10 \pm \sqrt{292}}{6} = \frac{5}{3} + \frac{\sqrt{73}}{3}$ and $\frac{5}{3} - \frac{\sqrt{73}}{3}$ 4.51 and -1.18
13. $b = \frac{-3 + \sqrt{361}}{2} = \frac{-3+19}{2}$ and $\frac{-3-19}{2}$ 8 and -11	14. $n = \frac{-8 + \sqrt{32}}{8} = -1 + \frac{\sqrt{2}}{2}$ and $1 - \frac{\sqrt{2}}{2}$ -0.29 and -1.71	