section 4 topic 8 solving quadratic equations using the quadratic formula partJanulary216020200k

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Let's Practice!

1. Solve the following equations using the quadratic formula.

a.
$$\frac{a}{4}x^{2} - x + \frac{1}{2} = 0$$

$$\frac{1}{4}x^{2} - \frac{1}{4}x^{2} - \frac{1}{4}x + \frac{1}{2} = 0$$

$$\frac{1}{4}x^{2} - \frac{1}{4}x^{2} - \frac{1}{4}x + \frac{1}{2} = 0$$

$$\frac{1}{4}x^{2} - \frac{1}{4}x^{2} - \frac{1}{4}x + \frac{1}{4}x^{2} - \frac{1}{4}x^{2} + \frac{1}{4}x^{2}$$

$$\frac{\left(1\pm\sqrt{\frac{1}{2}}\right)^2}{\frac{1}{2}2}$$

$$2\pm2\sqrt{\frac{1}{2}}$$

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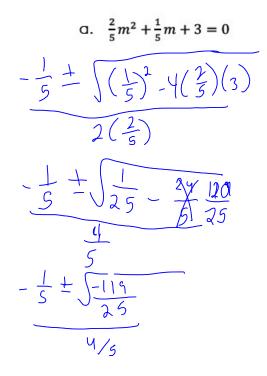
b.
$$(a+2)^2 = 2a$$

 $(a+2)(a+3) = 2c$
 $a^2 + 2a + 2a + 4 = 2a$
 $a^2 + 4a + 4 = 2a$
 $a^2 + 2a + 4 = 0$
 $2 \pm 2i\sqrt{3}$
 $a^2 + 2a + 4 = 0$
 $2 \pm 2i\sqrt{3}$
 $2 \pm 3i\sqrt{3}$
 $2 \pm 3i\sqrt{3}$
 $2i\sqrt{3}$
 $2 \pm 3i\sqrt{3}$
 $1 \pm i\sqrt{3}$
 $2 \pm 3i\sqrt{3}$
 $1 \pm i\sqrt{3}$

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Try It!

2. Solve the following equations using the quadratic formula.



sing the quadratic formula.

$$\begin{pmatrix}
-\frac{1}{5} + \frac{1}{5} \\
\frac{4}{5} \\
\frac{5}{5} \\
\frac{4}{5} \\
\frac{5}{5} \\
\frac{5}{4} \\
\frac{1}{5} \\
\frac{5}{4} \\
\frac{1}{5} \\
\frac{5}{4} \\
\frac{1}{5} \\
\frac$$

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b.
$$(b-\frac{1}{2})^{2} = \frac{b}{2}$$

 $(b-\frac{1}{2})(b-\frac{1}{2}) = \frac{b}{2}$
 $b^{2} - \frac{1}{2}b - \frac{1}{2}b + \frac{1}{4} = \frac{b}{2}$
 $b^{2} - \frac{1}{2}b + \frac{1}{4} = 0$
 $b^{2} - \frac{1}{2}b + \frac{1}{4} = 0$