## Quadratics HW_5

Monday, May 11, 2015
1:30 PM


Solve using the quadratic Formula
Solve using the quadratic Formula
5. $x^{2}+14 x+20=0$

$$
\begin{aligned}
& \text { 5. } x^{2}+14 x+20=0 \\
& X=\frac{-b \pm \sqrt{b^{2}-4 a c}}{2 a} \\
& a=1 \\
& b=14 \quad X=\frac{-(14) \pm \sqrt{(14)^{2}-4(1)(20)}}{2(1)} \\
& c=20 \quad X=\frac{-14 \pm \sqrt{196-80}}{2}
\end{aligned}
$$

Solve using the quadratic formula

$$
\begin{aligned}
& \begin{array}{l}
\text { 6. } 2 x^{2}-6 x+3=0 \\
a=2 \\
b=-6
\end{array} \\
& x=\frac{b \pm \sqrt{b^{2}-4 a c}}{2 a} \\
& \\
& \\
& \\
& \\
& \\
& \\
& X=\frac{-(-b) \pm \sqrt{(-6)^{2}-4 \cdot(2)(3)}}{2(2)} \\
& \text { Solve using the quadratic formula }
\end{aligned}
$$

$$
\begin{aligned}
& x=\frac{-14 \pm \sqrt{116}}{2} \\
& x=\frac{-14+10.77}{2} \text { or } x=\frac{-14-10.77}{2} \\
& x=\frac{-3.23}{2} \text { or } x=\frac{-24.77}{2} \\
& x \approx 1.62 \text { or } x \approx-12.39
\end{aligned}
$$

$$
\begin{aligned}
& x=\frac{6 \pm \sqrt{12}}{4} \\
& x=\frac{6+3.46}{4} \text { or } x=\frac{6-3.46}{4} \\
& x \approx 2.37 \text { or } x \approx 0.635
\end{aligned}
$$

$$
\begin{array}{ll}
x=-\frac{(-6) \pm \sqrt{(-6)^{2}-4 \cdot(2)(3)}}{2(2)} & x=\frac{6+3.46}{4} \text { or } x=\frac{6-3.46}{4} \\
x=\frac{6 \pm \sqrt{36-24}}{4} & x \approx 2.37 \text { or } x \approx 0.635
\end{array}
$$

$$
\begin{aligned}
& \text { Solve using the quadratic formula } \\
& \begin{array}{l}
\text { 7. } 0=-x^{2}+10 x-8 \\
a=-1 \quad \\
\begin{array}{l}
b=10 \\
c=-8
\end{array} \\
\\
\\
X=\frac{-b \pm \sqrt{b^{2}-4 a c}}{2 a} \\
X=\frac{-10 \pm \sqrt{100-32}}{-2}
\end{array}
\end{aligned}
$$

$$
x=\frac{-10 \pm \sqrt{68}}{-2}
$$

$$
x=\frac{-10+8.25}{-2} \text { or } x=\frac{-10-8.25}{-2}
$$

$$
x \approx 0.88 \text { or } x=9.13
$$

Factor

$$
\frac{\text { 2. } x^{2}+11 x+30}{(x+6)(x+5)}
$$



| Solve |  |
| ---: | :--- |
| 4. |  |
| $\frac{3 x^{2}-48=t_{+48}}{\frac{3 x^{2}}{3}=\frac{48}{3}}$ | $x^{2}=16$ <br> $x= \pm \sqrt{16}$$\quad$square root both <br> sides |
| $x=4$ or $x=-4$ |  |



$$
\begin{aligned}
& \frac{3 x^{2}-48=0}{+48}+48 \\
& \frac{3 x^{2}}{3}=\frac{48}{3}
\end{aligned} \quad \begin{aligned}
& x=16 \\
& x= \pm \sqrt{16}
\end{aligned}
$$

