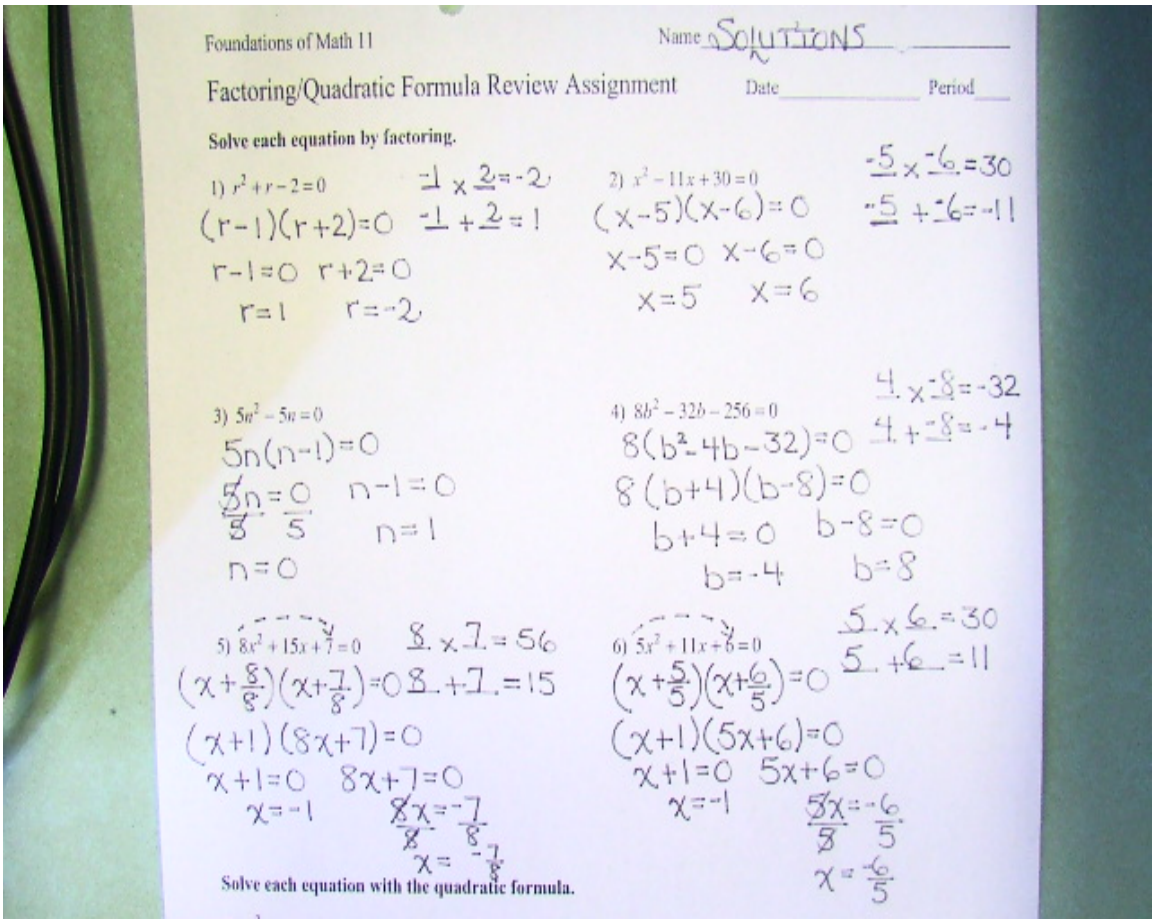


Foundations of Math 11 Name SOLUTIONS

Factoring/Quadratic Formula Review Assignment Date _____ Period ____

**Solve each equation by factoring.**

1) $r^2+r-2=0$

$-1 \times 2 = -2$

$-1 + 2 = 1$

$(r-1)(r+2)=0$

$r-1=0 \quad r+2=0$

$r=1 \quad r=-2$

2) $x^2-11x+30=0$

$-5 \times -6 = 30$

$-5 + -6 = -11$

$(x-5)(x-6)=0$

$x-5=0 \quad x-6=0$

$x=5 \quad x=6$

3) $5n^2-5n=0$

$5n(n-1)=0$

$\frac{5n}{5}=\frac{0}{5} \quad n-1=0$

$n=1$

$n=0$

4) $8b^2-32b-256=0$

$4 \times -8 = -32$

$4 + -8 = -4$

$8(b^2-4b-32)=0$

$8(b+4)(b-8)=0$

$b+4=0 \quad b-8=0$

$b=-4 \quad b=8$

5) $8x^2+15x+7=0$

$8 \times 7 = 56$

$8 + 7 = 15$

$\left(x+\frac{8}{8}\right)\left(x+\frac{7}{8}\right)=0$

$(x+1)(8x+7)=0$

$x+1=0 \quad 8x+7=0$

$x=-1 \quad \frac{8x}{8}=\frac{-7}{8}$

$x=-\frac{7}{8}$

6) $5x^2+11x+6=0$

$5 \times 6 = 30$

$5 + 6 = 11$

$\left(x+\frac{5}{5}\right)\left(x+\frac{6}{5}\right)=0$

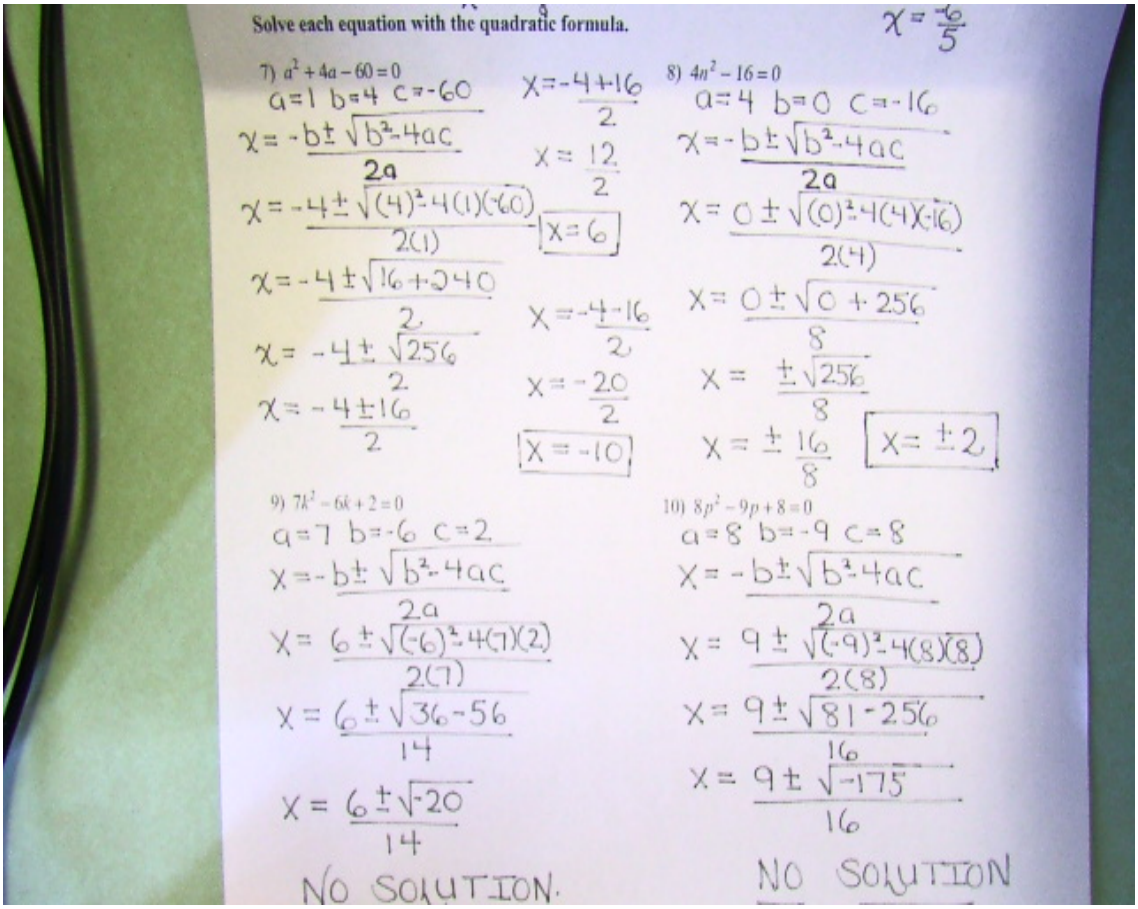
$(x+1)(5x+6)=0$

$x+1=0 \quad 5x+6=0$

$x=-1 \quad \frac{5x}{5}=\frac{-6}{5}$

$x=-\frac{6}{5}$

**Solve each equation with the quadratic formula.**



Solve each equation with the quadratic formula.

7) $a^2+4a-60=0$

$a=1\ b=4\ c=-60$

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

$x=\frac{-4\pm\sqrt{(4)^2-4(1)(-60)}}{2(1)}$

$x=\frac{-4\pm\sqrt{16+240}}{2}$

$x=\frac{-4\pm\sqrt{256}}{2}$

$x=\frac{-4\pm16}{2}$

$x=\frac{-4+16}{2}$ $\quad x=\frac{12}{2}$ $\quad x=6$

$x=\frac{-4-16}{2}$ $\quad x=\frac{-20}{2}$ $\quad x=-10$

8) $4n^2-16=0$

$a=4\ b=0\ c=-16$

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

$x=\frac{0\pm\sqrt{(0)^2-4(4)(-16)}}{2(4)}$

$x=\frac{0\pm\sqrt{0+256}}{8}$

$x=\frac{\pm\sqrt{256}}{8}$

$x=\frac{\pm16}{8}$ $\quad x=\pm2$

9) $7k^2-6k+2=0$

$a=7\ b=-6\ c=2$

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

$x=\frac{6\pm\sqrt{(-6)^2-4(7)(2)}}{2(7)}$

$x=\frac{6\pm\sqrt{36-56}}{14}$

$x=\frac{6\pm\sqrt{-20}}{14}$

NO SOLUTION.

10) $8p^2-9p+8=0$

$a=8\ b=-9\ c=8$

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

$x=\frac{9\pm\sqrt{(-9)^2-4(8)(8)}}{2(8)}$

$x=\frac{9\pm\sqrt{81-256}}{16}$

$x=\frac{9\pm\sqrt{-175}}{16}$

NO SOLUTION

$x=\frac{-6}{5}$

## Attachments

7s7e2 finalt.mp4

7s7e3 finalt.mp4

7s7e4 finalt.mp4