Prerequisites Practice for Homework:

Solve the quadratic equation by factoring or the quadratic formula. Round your answers to the nearest hundredth, if necessary.

1. $9x^2 - 11 = 6x$

$9x^2 - 6x - 11 = 0$

$\frac{-(-6) \pm \sqrt{(-6)^2 - 4(9)(-11)}}{2(9)}$ → $\frac{6 \pm \sqrt{432}}{18}$

$\frac{6 \pm \sqrt{36 + 396}}{18}$ → $\frac{6 \pm 12\sqrt{3}}{18}$

$\frac{1 \pm 2\sqrt{3}}{3}$ → 1.49, −0.82

2. $n^2 - 10n + 22 = -2$

$+2 \quad +2$

$(n-6)(n-4) = 0$

4, 6

3. $3r^2 - 16r - 7 = 5$

$-5 \quad -5$

$3r^2 - 16r - 12 = 0$

$r^2 - 16r - 36 = 0$

$(r - \frac{18}{3})(r + \frac{2}{3}) = 0$

$(r-6)(3r+2) = 0$

6, $-\frac{2}{3}$

4. Solve using logarithms: $16^r = 67$

$r = \log_{16} 67$

1.52

5. Simplify the expression: $(2v)^2 \bullet 2v^2$

$4v^2 \cdot 2v^2$

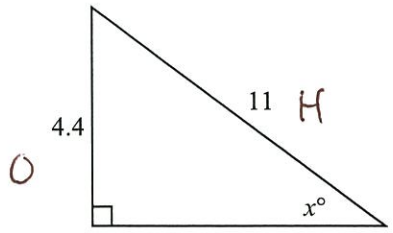
$8v^4$

6. Expand: $(2x + y)^2$

	2x	y
2x	$4x^2$	2xy
y	2xy	y^2

$4x^2 + 4xy + y^2$

7. Find the value of x. Round to the nearest tenth.



$\sin x^\circ = \frac{4.4}{11}$

$\sin^{-1}\left(\frac{4.4}{11}\right) = x^\circ$

$23.58^\circ = x$

8. Simplify: $\frac{x^2+2x-80}{2x^3-24x^2+64x}$ $\frac{(x+10)(x-8)}{2x(x^2-12x+32)}$

$\frac{(x+10)(x-8)}{2x(x-8)(x-4)}$

$\frac{x+10}{2x(x-4)}$