Remember

1. $\sqrt{40} = \sqrt{4 \times 10} = 2\sqrt{10}$
2. $\sqrt{36-16} = \sqrt{20} = 2\sqrt{5}$
3. $\frac{4}{\sqrt{7}} \times \frac{\sqrt{7}}{\sqrt{7}} = \frac{4\sqrt{7}}{7}$ rationalize denom.
4. $x^2 = 36$

$6 \times 6 = 36$

$-6 \times -6 = 36$

$x = \pm 6$

IMPORTANT

ex.1 $4x^2 = 100$ isol x^2

$x^2 = 25$

$x = \pm 5$

2. $y^2 + 12 = 61$

$y^2 = 49$

$y = \pm 7$

3. $x^2 = 12$

$x = \pm \sqrt{12}$

$x = \pm 2\sqrt{3}$ EXACT SOLUTION

$x = \pm 2\sqrt{3}$ EXACT

$x = \pm 3.46$ round to hundredths

4. $3t^2 + 14 = 19$

$3t^2 = 5$

$t^2 = \frac{5}{3}$

$t = \pm\sqrt{\frac{5}{3}} = \pm\frac{\sqrt{5}\times\sqrt{3}}{\sqrt{3}\times\sqrt{3}} = \pm\frac{\sqrt{15}}{3}$ EXACT

5. $-19 = 7 - 8n^2$

$-7 \quad -7$

$-26 = -8n^2$

$\frac{-26}{-8} = \frac{-8n^2}{-8}$

$\frac{13}{4} = n^2$

$\pm\frac{\sqrt{13}}{2} = n$ exact

6. $2y^2 + 14 = 230$

$-14 \quad -14$

$\frac{2y^2}{2} = \frac{216}{2}$

$y^2 = 108$

$y^2 = 108$

$y = \pm\sqrt{108}$ — 9.12 (3.3)(2.2).3

$y = \pm 6\sqrt{3}$ Exact

7. $\sqrt{(2x+7)^2} = \sqrt{4}$ $(\ )^2$ isolate

$2x+7 = \pm 2$ solve x

$2x = -7 \pm 2$ OR $\pm 2 - 7$

$x = \dfrac{-7 \pm 2}{2}$ $\dfrac{\pm 2 - 7}{2}$

$= \dfrac{-7+2}{2}$ $= \dfrac{-7-2}{2}$

$x = -\dfrac{5}{2}$ $x = -\dfrac{9}{2}$

homework # 13-29 odd
39-57 odd