

Warm up:

Solve.

1) $3x - 7 = 20$

$$\begin{array}{r} +7 \quad +7 \\ \hline 3x = 27 \\ \frac{3x}{3} = \frac{27}{3} \\ \hline x = 9 \end{array}$$

2) $6 - n = -12$

$$\begin{array}{r} -6 \quad -6 \\ \hline -n = -18 \\ \frac{-n}{-1} = \frac{-18}{-1} \\ \hline n = 18 \end{array}$$

3) $4 + 5x = -16$

$$\begin{array}{r} -4 \quad -4 \\ \hline 5x = -20 \\ \frac{5x}{5} = \frac{-20}{5} \\ \hline x = -4 \end{array}$$

ADDSMP
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$$\sqrt{x^2} = \sqrt{9}$$

$$5^2 = 25$$
$$\sqrt{25} \rightarrow 5$$

$$x = 3, -3$$

Inverse Operations

$$+ / -$$

$$\times / \div$$

$$\sqrt{\quad}$$

$$\sqrt{n^2} = \sqrt{100}$$

$$n = 10, -10$$

$$n = \pm 10$$

1, 4, 9, 16, 25, 36, 49, 64,
81, 100, 121, 144

$$\left(\sqrt{x}\right)^2 = \left(4\right)^2$$
$$x = 16$$

$$3x^2 - 5 = 7$$

$$\begin{array}{r} + 5 \quad + 5 \\ \hline \end{array}$$

$$\frac{3x^2}{3} = \frac{12}{3}$$

$$\sqrt{x^2} = \sqrt{4}$$

$$x = 2, -2$$

QUESTIONS

$$\begin{array}{r} 9 - y^2 = -40 \\ \underline{-9 \quad \quad \quad -9} \\ -y^2 = -49 \\ \underline{-1 \quad \quad \quad -1} \\ \sqrt{y^2} = \sqrt{49} \\ y = \pm 7 \end{array}$$

$$1) x^2 = 1$$

$$2) 81 = a^2$$

$$3) \sqrt{n} = 7$$

$$4) 3\sqrt{b} = 12$$

$$5) 5x^2 - 7 = 38$$

$$6) -4 = -8 - k^2$$

$$\sqrt{x^2} = \sqrt{1}$$

$$x = \pm 1$$

$$2) \sqrt{81} = \sqrt{a^2}$$

$$\sqrt{9} = a$$

$$3) (\sqrt{n})^2 = (7)^2$$
$$n = 49$$

$$4) \frac{3\sqrt{b}}{3} = \frac{12}{3}$$

$$(\sqrt{b})^2 = (4)^2$$

$$b = 16$$

$$5) 5x^2 - 7 = 38$$

$$+7 \quad +7$$

$$\frac{5x^2 = 45}{5 \quad 5}$$

$$\sqrt{x^2} = \sqrt{9}$$

$$x = \pm 3$$

$$\begin{aligned} 6) \quad & -4 = -8 - k^2 \\ & \quad \quad +8 \quad +8 \\ \hline & 4 = -k^2 \\ & \quad \quad -1 \quad -1 \\ \hline & \sqrt{-4} = \sqrt{-k^2} \\ & \text{no solution} \end{aligned}$$

