

Algebra I

3-3

(Day 1)

Solving Equations

Solve.

$$1) 2x - 1 = 11$$

$$2x - 1 + 1 = 11 + 1$$

$$\underline{2x} = \underline{12}$$

$$x = 6$$

$$\{6\}$$

$$7) \frac{1}{2}x + 7 = 6$$

$$\frac{1}{2}x + 7 - 7 = 6 - 7$$

$$2(\frac{1}{2}x) = (-1)2$$

$$x = -2$$

$$\{-2\}$$

Given the choice, I will undo addition and subtraction first.

$$11) 3\left(\frac{x+5}{3}\right) = 7 > 3$$

$$x + 5 = 21$$

$$x + 5 - 5 = 21 - 5$$

$$x = 16$$

$$\{16\}$$

For 11, we can't undo the 5 first because the fraction bar is a grouping symbol. We must undo the division by 3 first to get at the top expression.

$$19) \underline{5y} - 7 + 4y = 13$$

$$5y - 7 = 13$$

$$5y - 7 + 7 = 13 + 7$$

$$\underline{5y} = \underline{20}$$

$$y = 4$$

$$\{4\}$$

In 19, we put together like terms first. Remember the negative symbol belongs to the 7, not the y , so when we combine the y s, it is the addition of two positives

Try on your own!

$$25) 35 = 5(n + 2)$$

$$35 = 5n + 10$$

$$35 - 10 = 5n + 10 - 10$$

$$\underline{25} = \underline{5n}$$

$$5 = n$$

$$\{5\}$$

$$\text{or } \underline{35} = \underline{5(n+2)}$$

$$7 = n + 2$$

$$7 - 2 = n + 2 - 2$$

$$5 = n$$

$$\{5\}$$

There are two ways you can solve this problem. Choose whichever method you prefer. Distributive property or division first.

Assignment:
The Classic 3-3

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