

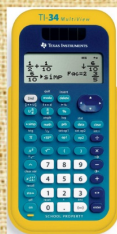
MS Algebra: 3.2.6

Warm-up

Any ?s on HW: Worksheet

Goal: I can solve multi-step equations in one variable.

HW: Worksheet 3.2.6



Tuesday: Warm up

Which of the following equations matches the table shown at the right?

a. $y = 3x + 1$

b. $y = 3x + 4$

c. $y = 6x + 7$

d. $y = 6x + 1$

| x | y |
|---|----|
| 1 | 7 |
| 3 | 13 |
| 5 | 19 |
| 7 | 25 |

Handwritten notes: $2(1) = 3$, $2(3) = 6$, $2(5) = 10$, $2(7) = 14$. The table shows a constant difference of 2 in x and 6 in y, indicating a slope of 3.

CW: 3.2.6

Solve.

1. $-76 + 9x + 5x = 92$

$$\begin{array}{r} -76 + 14x = 92 \\ +76 \quad +76 \\ \hline 14x = 168 \\ \hline 14 \quad 14 \\ \hline x = 12 \end{array}$$

2. $g + 8g - 19 = -1$

3. $-3x + 2x + 100 = 40$

$$\begin{array}{r} -5x + 100 = 40 \\ +100 \quad +100 \\ \hline -5x = -60 \\ \hline -5 \quad -5 \\ \hline x = 12 \end{array}$$

4. $2y + 2y + 6 + 10 = 18$

5. $3w + 15 - 5 + 2w = 5$

6. $x + 2x + 3x - 7 = -25$

$$\begin{array}{r} 6x - 7 = -25 \\ +7 \quad +7 \\ \hline 6x = -18 \\ \hline 6 \quad 6 \\ \hline x = -3 \end{array}$$

You order 5 plain bagels and 8 onion bagels. Each bagel is the same price. With a loaf of bread, which costs \$1.50, the total bill is \$8.00. Find the cost of one bagel. = b

$$5b + 8b + 1.50 = 8.00$$

$$13b + 1.50 = 8.00$$



A farmer buys 6 sheep to start his wool farm. He then decides to buy insurance for \$100, just in case something baaa...d happens. The farmer realizes that his six sheep are not enough, and he decides to buy 10 more sheep. He thought the sheep would sleep better at night if he bought them a small space heater for \$25. If the farmer paid a total of \$925, how much did each sheep cost? → s

$$(6s) + 100 + (10s) + 25 = 925$$

$$16s + 125 = 925$$

$$\begin{array}{r} 16s + 125 \\ - 125 \\ \hline 16s \end{array}$$

$$\begin{array}{r} 16s \\ \hline 16 \end{array}$$

$$= 800$$

$$s = 50$$

