

Warm up:

1) Jackets are on sale for 20% off. If the regular price of a jacket is \$79, what is the sale price? ^{80%}
 $0.8(79) = 63.2$

\$63.20

2) You went out to eat and paid a total of \$84, including a 15% tip. What was your total bill before the tip was added?

$$\frac{1.15x}{1.15} = \frac{84}{1.15}$$

\$73.04

3) A local sporting goods store buys snowboards for \$290 and sells them for \$440. What is the percent markup?

$$\frac{440 - 290}{290} = \frac{150}{290} = 0.5172$$

51.72%

when finding percent change...

$$\frac{\text{difference}}{\text{original}}$$

when given the percent change...

start @ 100%

% of the original

$$\textcircled{2} \quad -\frac{3}{4} + \frac{1}{3}$$

$$-\frac{9}{12} + \frac{4}{12} = \textcircled{-\frac{5}{12}}$$

①

$$5/15 \div \left(-\frac{3}{8}\right)$$

$$5/15 \cdot \left(-\frac{8}{3}\right) = -\frac{16}{15} = \textcircled{-\frac{1}{15}}$$

$$\textcircled{4} \quad \frac{23}{7} = \textcircled{3.29 \text{ hot dogs/min}}$$

$$\textcircled{5} \quad \frac{5}{7} \times \frac{8}{x}$$
$$\frac{5x}{5} = \frac{56}{5}$$
$$x = 11.2$$
$$\textcircled{\$11.20}$$

Assessment Solutions

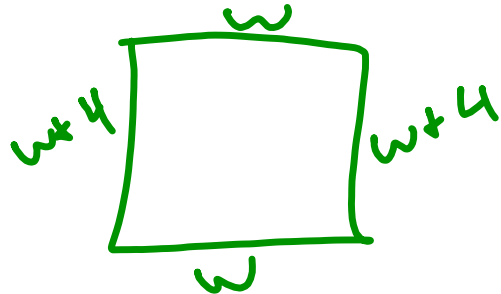
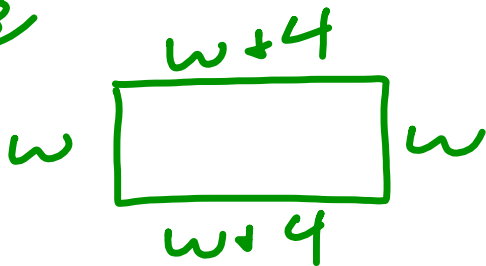
①

$$2.3x + 5x$$

$$7.3x$$

$$\begin{array}{r} 2.3 \\ + 5.0 \\ \hline 7.3 \end{array}$$

(8)



$$\underline{w} + \underline{w+4} + \underline{w} + \underline{w+4} = 4w + 8$$

$$\textcircled{2} \quad \underline{2\frac{1}{2}a + \frac{5}{6}b} - \underline{\frac{3}{4}a}$$

$$\frac{7}{4}a + \frac{5}{6}b$$

$$\frac{3}{4}a + \frac{5}{6}b$$

$$\begin{array}{r} 2\frac{1}{2} - \frac{3}{4} \\ \frac{5}{2} - \frac{3}{4} \\ \frac{10}{4} - \frac{3}{4} = \frac{7}{4} \end{array}$$

$$\begin{array}{r} \textcircled{10} \quad -7x + 3 = 31 \\ \quad \quad \quad -3 \quad -3 \\ \hline \quad \quad -7x = 28 \\ \quad \quad \quad \frac{-7}{-7} \quad \frac{-7}{-7} \\ \hline \quad \quad \quad \textcircled{x = -4} \end{array}$$

⑩

$$\frac{2}{3}y - 2 = \frac{1}{2}$$

$$\begin{array}{r} +2 \quad +2 \\ \hline \end{array}$$

$$\frac{3}{2} \left(\frac{2}{3}y \right) = \left(\frac{5}{2} \right) \frac{3}{2}$$

$$y = \frac{15}{4} = 3\frac{3}{4}$$

$$\frac{1}{2} + 2$$

$$\frac{1}{2} + \frac{4}{2} = \frac{5}{2}$$

$$\frac{1}{2} + \frac{4}{2} = \frac{5}{2}$$

⑪

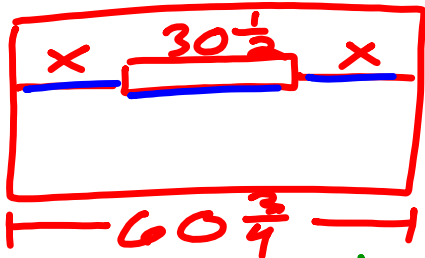
$$4 - n = -3$$

$$\begin{array}{r} -4 \quad -4 \\ \hline \end{array}$$

$$\frac{-n}{-1} = \frac{-7}{-1}$$

$$n = 7$$

(14)



$$x + 30\frac{1}{2} + x = 60\frac{3}{4}$$

$$2x + 30\frac{1}{2} = 60\frac{3}{4}$$

$$\underline{-30\frac{1}{2} \quad -30\frac{1}{2}}$$

$$\underline{2x = 12\frac{1}{4}}$$

$$\underline{\frac{2x}{2} = \frac{12\frac{1}{4}}{2}}$$

$$x = \frac{12\frac{1}{4}}{2}$$

$$= 15\frac{1}{8} \text{ in}$$

$$60\frac{3}{4} - 30\frac{1}{2}$$

$$\frac{243}{4} - \frac{61}{2}$$

$$\frac{243}{4} - \frac{122}{4} = \frac{121}{4}$$

$$\frac{121}{4} \div 2$$

$$\frac{121}{4} \cdot \frac{1}{2}$$

$$\frac{121}{4}$$

$$\begin{array}{r} 8 \overline{) 121} \\ \underline{80} \\ 41 \\ \underline{40} \\ 1 \end{array}$$

$$\textcircled{14} \quad \begin{array}{r} 3.25 + 2.75m = 17.00 \\ - 3.25 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ 9 \\ 17.00 \\ - 3.25 \\ \hline \end{array}$$

$$\begin{array}{r} 275 \overline{) 1375} \\ \underline{1375} \\ 0 \end{array}$$

$$\begin{array}{r} 2.75m = 13.75 \\ \underline{2.75} \\ 2.75 \end{array}$$

$$m = 5$$

$$\textcircled{5 \text{ mi}}$$

$$\textcircled{7} \quad 30ab^2 + 12ab - 36a$$

$$6a(5b^2 + 2b - 6)$$

$$\textcircled{6} \quad 21d - 14$$

$$7(3d - 2)$$

$$\textcircled{2} \quad -2 + \frac{12}{3} (4x - 5)$$

$$\frac{-2}{1} + \frac{8}{3}x - \frac{10}{1}$$

$$\frac{8}{3}x - \frac{16}{3}$$

$$\frac{8}{3}x - \frac{16}{3}$$

$$\begin{array}{r} 2 \\ \times 4x \\ \hline 8x \\ 2 \\ \times 4 \\ \hline 8 \\ 2 \\ \times 10 \\ \hline 20 \\ 2 \\ \times 16 \\ \hline 32 \end{array}$$

$$\textcircled{4} \quad 5 - 4(2n - 6)$$

$$\underline{5} - 8n + \underline{24}$$

$$\textcircled{-8n + 29}$$