Pre-Algebra
Worksheet 5: Fractions III: Answers

(1) $\frac{3}{5} \times \frac{3}{4} = \frac{3 \times 3}{5 \times 4} = \frac{9}{20}$

(2) $\frac{1}{2} \times \frac{5}{16} = \frac{5}{32}$

(3) $-\frac{4}{3} \times \frac{5}{8} = -\frac{20}{24} = -\frac{5}{6}$

(4) $\frac{14}{6} \times \left(-\frac{5}{16}\right) = -\frac{14 \times 5}{6 \times 16} = -\frac{70}{96} = -\frac{35}{48}$

(5) $-4\frac{4}{6} \times \left(2\frac{2}{3}\right) = -\frac{6 \times 4 + 4}{6} \times \frac{3 \times 2 + 2}{3} = -\frac{28}{6} \times \frac{8}{3} = -\frac{28 \times 8}{6 \times 3} = -\frac{204}{18} = -\frac{102}{9} = -\frac{34}{3}$

(6) $\frac{1}{2}$ **(7)** $-\frac{3}{8}$ **(8)** 3 **(9)** $-\frac{5}{12}$ **(10)** $-\frac{3}{8}$ **(11)** 8 **(12)** $3\frac{5}{21}$

Solve the following equations for x and check your answers.

(13)

$$4x = \frac{3}{4}$$
$$4x \times \frac{1}{4} = \frac{3}{4} \times \frac{1}{4}$$
$$x = \frac{3}{16}$$

check $4 \times \frac{3}{16} = \frac{3 \times 4}{16} = \frac{3}{4}$

(14)

$$\frac{4}{5}x = 5$$
$$\frac{5}{4} \times \frac{4}{5}x = 5 \times \frac{5}{4}$$
$$x = \frac{25}{4}$$

$$check\ \frac{4}{5} \times \frac{25}{4} = \frac{4 \times 25}{5 \times 4} = 5$$

(15)

$$\frac{2}{3}x = -6$$
$$x = -6\frac{3}{2} = -\frac{18}{2} = -9$$

(16) You multiply the weight of your turkey by the time per pound.

$$time = 10\frac{1}{2} \times \frac{3}{4}$$
$$= \frac{21}{2} \times \frac{3}{4}$$
$$= \frac{63}{8} = 7\frac{7}{8} hours$$

(17) Multiply the number of section by the length of each section.

$$length = 6\frac{1}{2} \times 8$$
$$= \frac{13}{2} \times \frac{8}{1}$$
$$= \frac{104}{2} = 52 feet$$

(18) Divide the distance by the rate.

$$time = \frac{\frac{1}{2}}{2\frac{1}{2}} = \frac{\frac{1}{2}}{\frac{5}{2}} = \frac{1}{2} \times \frac{2}{5}$$
$$time = \frac{2}{10} = \frac{1}{5}\ hour$$

(19) 75% is the same as 75/100 or 3/4. This means 1/4 or 25% of apples were left. So multiply the fraction left by the number of pounds of apples. Mmm...apple pie.

$$3\frac{1}{2} \times \frac{1}{4} = \frac{7}{2} \times \frac{1}{4}$$
$$= \frac{7}{8} = 1\frac{1}{8}\ pounds$$

(20) One quarter of the regular price is $8.00. Set up an equation with the unknown being the regular price of the sweater.

$$\frac{1}{4}x = 8$$
$$x = 8 \times 4$$
$$x = \$32$$