

## Pre-Algebra

### Worksheet 5: Fractions III

In problems below, multiply rational numbers and simplify the result.

$$(1) \quad \frac{3}{5} \times \frac{3}{4}$$

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

$$(3) \quad -\frac{4}{3} \times \frac{5}{8}$$

$$(4) \quad \frac{14}{6} \times \left(-\frac{5}{16}\right)$$

$$(5) \quad -4\frac{4}{6} \times \left(2\frac{2}{3}\right)$$

In problems below, find the value of  $x$  and simplify the result.

$$(6) \quad x = \left(\frac{1}{2} + \frac{3}{4}\right) \times \frac{2}{5}$$

$$(7) \quad x = \frac{3}{8} \times (6 - 7)$$

In problems below, divide rational numbers and simplify the result.

$$(8) \quad \frac{3}{5} \div \frac{1}{5}$$

$$(9) \quad -\frac{5}{8} \div \frac{3}{2}$$

$$(10) \quad -\frac{3}{10} \div \frac{8}{5}$$

$$(11) \quad -3\frac{1}{3} \div \left(-\frac{5}{6}\right)$$

$$(12) \quad 5\frac{2}{3} \div 1\frac{3}{4}$$

Solve the following equations for  $x$  and check your answers.

$$(13) \quad 4x = \frac{3}{4}$$

$$(14) \quad \frac{4}{5}x = 5$$

$$(15) \quad \frac{2}{3}x = -6$$

Solve the following word problems and check your answers.

(16) A cookbook recommends roasting a turkey at a low temperature  $\frac{3}{4}$  hour for each pound. How long should you roast a  $10\frac{1}{2}$  pound turkey?

(17) Each section of a fence is  $6\frac{1}{2}$  feet long. How long is this fence if it has 8 sections?

(18) Anne walks at a rate of  $2\frac{1}{2}$  miles per hour. How long does it take her to walk a distance of  $\frac{1}{2}$  miles?

(19) Mary had  $3\frac{1}{2}$  pounds of apples. She used 75% of apples to make a pie. How many pounds of apples were left?

(20) A store has a  $\frac{1}{4}$  off sale on all sweaters. Jessica saved \$8 when she purchased a pink sweater. What was the regular price?