

**Math 45 Handout for 1.5 Adding, Subtracting, Multiplying, and Dividing Rational Numbers (Fractions & Decimals)**

**Objectives:**

1. Add, subtract, multiply and divide fractions.
2. Add, subtract, multiply and divide decimals.

You should already know all of these problems from Math 35. If you are having trouble, get tutoring help right away from the Math Center (room 426), the ASC (room 420), or Ms. Carey's office hours.

**Find the product, and write in lowest terms, if necessary.**

1)  $\frac{14}{15} \cdot \frac{6}{35}$

2)  $3 \cdot \frac{49}{15}$

3)  $-\frac{16}{56} \cdot \frac{7}{8}$

4)  $\frac{24}{5} \cdot \left(-\frac{20}{7}\right)$

5)  $-\frac{1}{13} \cdot \left(-\frac{4}{7}\right)$

**Find the quotient, and write in lowest terms, if necessary.**

8)  $\frac{12}{10} \div \frac{15}{8}$

9)  $-\frac{1}{7} \div 5$

10)  $15 \div \left(-\frac{5}{3}\right)$

11)  $-\frac{7}{5} \div \left(-\frac{10}{13}\right)$

**Solve the problem.**

- 6) If Sam spends  $\frac{3}{8}$  of his life exercising, how many hours does he spend exercising each week?

12)  $-\frac{1}{9} \div (-5)$

13)  $-9 \div \left(-\frac{4}{5}\right)$

**Find the reciprocal of the number.**

7)  $\frac{5}{8}$

Find the sum or difference, and write in lowest terms, if necessary.

$$14) -\frac{3}{4} + \frac{3}{8}$$

$$15) -\frac{7}{8} + \left(-\frac{1}{2}\right)$$

$$16) -\frac{2}{3} - \frac{1}{2}$$

$$17) -\frac{1}{8} - \left(\frac{5}{64}\right)$$

$$18) -\frac{5}{2} - (1)$$

$$19) \frac{3}{5} - 5$$

$$20) 4 - \left(-\frac{2}{3}\right)$$

$$21) \frac{1}{7} - \frac{1}{13}$$

$$22) \frac{30}{13} - \frac{9}{13} - \frac{12}{13}$$

$$23) -\frac{5}{3} + \left(-\frac{1}{3}\right) + \frac{2}{9}$$

Perform the indicated operations.

$$24) -(-0.66) + 0.69$$

$$25) 5.1 + (-5.4) + (-3.3)$$

$$26) 0.54 - (-0.49)$$

$$27) -12.3 - (-11.5)$$

$$28) 49.1 - 11.72 - (-6.3) + 15.48$$

$$29) 14.79 \times 0.0070$$

$$30) 3.2 \times (-7.20)$$

$$31) \frac{6.3832}{2.02}$$

$$32) \frac{-1.4}{0.07}$$