1. Evaluate:

(a) \( \frac{1}{2} + \frac{1}{4} \)  
(b) \( 1 - \frac{1}{2} \)

(c) \( \frac{1}{3} - 1 \)  
(d) \( \frac{3}{2} - \frac{1}{4} \)

(e) \( \frac{1}{3} + \frac{1}{2} \)  
(f) \( \frac{1}{8} + \frac{1}{4} \)

(g) \( \frac{1}{3} + \frac{2}{7} \)  
(h) \( \frac{5}{6} - \frac{3}{2} \)
2. Evaluate:

(a) \( \frac{2}{5} \cdot \frac{10}{3} - \frac{1}{3} \cdot \frac{6}{5} \)

(b) \( \frac{1}{3} \div \frac{5}{9} \)

(c) \( \frac{2}{5} / \frac{3}{8} \)

(d) \( \frac{1/3}{5} \)

3. Evaluate:

(a) \( \frac{3}{\frac{1}{2} - \frac{1}{4}} \)

(b) \( \frac{2}{5} - \frac{6}{7} \)
4. Simplify by adding the fractions:

(a) \( \frac{x}{2} + \frac{x}{5} \)

(b) \( \frac{3}{x} + \frac{1}{5x} \)

5. Solve the following equations:

(a) \( \frac{x}{2} + x = 1 \)

(b) \( \frac{x}{2} + \frac{x}{4} = 2 \)

(c) \( \frac{x}{3} = 1 - \frac{x}{2} \)

(d) \( \frac{1}{x} + \frac{2}{3x} = 1 \)
6. Simplify by adding the fractions:

(a) \[ \frac{x}{y} + \frac{1}{z} \]

(b) \[ \frac{2}{x} + \frac{1}{x^2} \]

7. Simplify each of the following:

(a) \[ \frac{x/y}{z} \]

(b) \[ \frac{x}{y/z} \]
8. Solve the following problems. Give your answers to 2 decimal places.

(a) What is 41% of 30?

(b) What percent of 30 is 15?

(c) 20 is 40% of what?

(d) What is 150% of 300?

9. Sales tax in New York City is 8.875%.

(a) If the listed price of an item is $10.99, what is the sales tax?

(b) If the listed price of an item is $5.49, how much do you pay for the item (including the sales tax)?
10. A voter registration campaign in a particular city increases the number of registered voters by 25%. If there were 6000 voters before the campaign, how many are there afterwards?

11. A store is having a 30% sale on all of its shirts. (In the following problems, assume that there is no sales tax.)

   (a) If a shirt was previously being sold for $20, how much does it cost now?

   (b) Zach buys a shirt from the store; he pays $17.50 for the shirt. How much would the shirt have cost before the sale? (Be careful with this problem. Let $x$ be the original cost of the shirt. Set up an equation involving $x$ and then solve.)