

Math 70 Quiz #2

1. (a) $\frac{3}{8} + \frac{5}{6} = \frac{3 \times 3}{8 \times 3} + \frac{5 \times 4}{6 \times 4} = \frac{9}{24} + \frac{20}{24} = \frac{29}{24}$ (using an LCD = 24)

(b) Here are two ways to do this:

i. $\frac{9}{4} \times \frac{2}{15}$ can be simplified into $\frac{3}{2} \times \frac{1}{5}$ by dividing common factors out of the numerators and denominators.

$$\text{So, } \frac{9}{4} \times \frac{2}{15} = \frac{3}{2} \times \frac{1}{5} = \frac{3 \times 1}{2 \times 5} = \frac{3}{10}$$

ii. $\frac{9}{4} \times \frac{2}{15} = \frac{9 \times 2}{4 \times 15} = \frac{18}{60}$

This can be further simplified: $\frac{9}{4} \times \frac{2}{15} = \frac{18}{60} = \frac{3 \times 6}{10 \times 6} = \frac{3}{10}$

(c) $\frac{6}{7} \div 3 = \frac{6}{7} \div \frac{3}{1} = \frac{6}{7} \times \frac{1}{3} = \frac{6}{21} = \frac{2}{7}$ (simplifying by dividing the num. and denom. by 3)

(d) $4.82 \times 10,000 = 48,200$ (Moving the decimal 4 digits to the right.)

2. Using long division, we have that $\frac{7}{20} = 0.35$ when written as a decimal.

3. To find the total cost of the rope, we must multiply the price per foot by the quantity purchased:

$$\text{Total Cost} = 13.5 \times 2.30 = 31.05$$

So, the total cost is \$31.05.