Task:

While in Europe, if you drive 105km per day, how much money would you spend on gas in one week if gas costs 1.10 \rm euros per liter and your car's gas mileage is 33.0mi/gal ? Assume that 1\; \rm euro = 1.26\; dollars

Solution:

Distance traveled per week:

$$105 \cdot 7 = 735 \ km$$

$$735 \ \cdot 0.6214 \approx 456.7 \ mi$$

Where 1Km is equivalent to 0.6214 miles.

The amount of gasoline used to travel this distance:

$$\frac{456.7}{33.0} \approx 13.84 \ gal$$

$$13.84 \cdot 3.785 = 52.4 \ liters$$

Where U. S. gallon is equivalent to 3.785 liters

The cost of this amount of gasoline:

$$52.4 \ \cdot 1.10 = 57.64 \ €$$

$$57.64 \ \cdot 1.26 \approx 72.63 \ \$$$

Answer: $73.63

3. Construct a Venn diagram illustrating the following sets.

3) U = {2, 4, 6, 8, 10, 12}

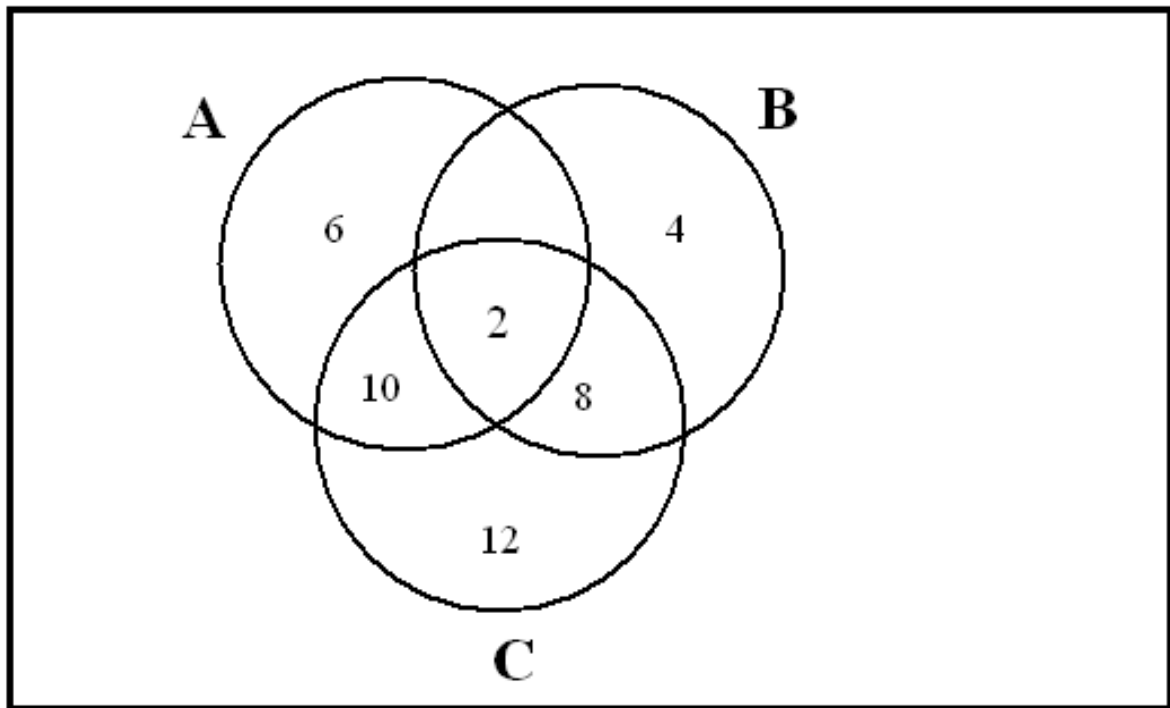A = {2, 6, 10}

B = {2, 4, 8}

C = {2, 8, 10, 12}

Solution:

$$U = \{2, 4, 6, 8, 10, 12\}$$

4. Find n(A) for the set A = { 3, 5, 7, 9, 11, 13}

Solution:
n(A) = number of items in set A = 5
Answer: 5
5. Find n(A) for the set A = {x | x is a second in a minute}

Solution:
n(A) = number of items in set A,
so n(A)=59 − 0 + 1 = 60
Answer: 60