CHEQ 1094 DIMENSIONAL ANALYSIS PRACTICE

1. If apples cost 30 cents per dozen, how many apples can be bought for 50 cents? (***Ans***. 20 apples)

2. Find the number of feet (ft) in 1.50 miles (1 mile = 5280 ft). (***Ans***. 7.92×10^3 ft)

3. Find the number of gallons in 5.00 cubic yards (yd^3) (231 in^3 = 1 gallon; 3 ft = 1 yd; 12 in = 1 ft) ((***Ans***. 1.01×10^3 gallons)

4. If a runner does the 100 yd dash in 10.0 seconds, what is the runner's speed in miles per hour? (3 ft = 1 yd; 1 mile = 5280 ft) ((***Ans***. 20.4 miles/hour)

5. Determine the number of seconds in the month of July. ((***Ans***. 2.6784×10^6 seconds)

6. A satellite is orbiting the earth at a speed of 30,000. kilometres per hour. How many seconds does it take to travel 100. km? (***Ans***. 12.0 seconds)

7. How many times does the hour hand of a clock go around in two weeks? (***Ans***. 336 times)

8. How many metres are there in 7.60 ft? (2.54 cm = 1 in; 12 in = 1 ft) (***Ans***. 2.32 metres)

9. How many cubic inches (in^3) are there in a box 9.00 cm long, 6.00 cm wide, and 4.00 cm high? (2.54 cm = 1 in) (***Ans***. 13.2 in^3)

10. Find the mass in kilograms of an object that weighs 13.4 ounces. (1 lb = 16 ounces; 1 kg = 2.20 lb) (***Ans***. 0.381 kg)