

Dimensional Analysis

Conversions:

$$1 \text{ foot} = 12 \text{ inches}$$

$$3 \text{ ft} = 1 \text{ yard}$$

$$5280 \text{ ft} = 1 \text{ mile}$$

$$1 \text{ inch} = 2.54 \text{ cm}$$

$$1000 \text{ mm} = 1 \text{ m}$$

$$100 \text{ cm} = 1 \text{ m}$$

$$10 \text{ mm} = 1 \text{ cm}$$

$$1 \text{ km} = 1000 \text{ m}$$

$$1 \text{ km} = 0.62 \text{ miles}$$

$$60 \text{ sec} = 1 \text{ min}$$

$$60 \text{ min} = 1 \text{ hr}$$

$$24 \text{ hr} = 1 \text{ day}$$

$$365 \text{ days} = 1 \text{ yr}$$

Using the above conversion factors, make the following conversions.

1. Convert 100 mm into inches.

2. Convert 32 years into hours.

3. Convert 12,345 mm into km.

4. Convert 12,345 seconds into years.

5. Convert 35 inches into meters.

6. Convert 1234 mm into feet.

7. Convert 27 km/hr into m/s.

8. Convert 35 miles/hr into ft/sec.