Key

From Cubits To Kilometers

Example: How many kilograms in 4.4 pounds? **2.2 pounds = 1 kg**

4.4 pounds . $\frac{1\text{ kg}}{2.2\text{ pounds}}$ = 2 kg the units of pounds cancel leaving kg

4.4 x 1 divide by 2.2 = 2

Example: How fast is 55mph in km/hr? **1 mi = 1.6km**

Note 55mph means 55 miles divided by 1 hr or you can go 55 mi in one hour

The hours can be ignored! $\frac{55\text{mi}}{1\text{ hr}} \cdot \frac{1.6\text{km}}{1\text{ mi}}$ = **88 km/hr** the units of km cancel leaving km and hr

40. cubits is supposed to be the length of the ark Noah built. But how big is a cubit? A cubit is an ancient unit of measurement that is defined as the average distance between the elbow and the tip of the middle finger. This is usually thought of as 18 inches.

1 cubit = 18 inches 1 foot = 12 inches 1 inch = 2.54 cm 1 mile = 1.6km

other factors you should know!!!!

1. How many feet are in a cubit? 1.5 ft

$1\text{ cubit} \cdot \frac{18\text{ in}}{1\text{ cubit}} \cdot \frac{1\text{ ft}}{12\text{ in}}$

2. How many millimeters are there in 25 meters? 25,000 mm

3. How many kilometers are there in 10,000 centimeters? 0.1 km

4. How long was the ark in feet? 60 ft.

5. How long was the ark in centimeters? 1828.8 cm

$720 \times 2.54 =$

6. Your car's gas mileage is about 30. miles/ gallon.
   a. How many gallons of gas will you need to make a trip of 1000 miles? 33.3 gal

   $1000\text{ mi} \times \frac{1\text{ gal}}{30\text{ mi}} =$

   b. If gasoline costs an average of $2.50/gallon, what is the cost of your trip? $83.3

   c. How far could you drive if you had $55? 660 miles

   $22\text{ gallons} \times \frac{30\text{ mi}}{1\text{ gal}} =$

7. Find the number of seconds in 10. years. 315,360,000 seconds

More Conversions

1. 25miles/hour = 36.6̄ ft/sec

2. 10 ft/sec = 0.0018939 miles/sec

3. 20km/hr = 5.5̄ m/s

4. 15m/s = 54 km/hr

$\frac{.015km}{s} \times 3600$

5. 40 miles/hour = 17.7̄ m/s

$\frac{40mi}{1hr} \times \frac{1.6km}{1mi} \times \frac{1000m}{1km} \times \frac{1hr}{3600s} =$

6. 1.5 inches = 3.81 cm = 0.0381 m

7. 14.7 cm = 147 mm

8. 6.576 g = 6576 mg

9. 0.5m = 500,000 µm

10. When filled a cubic tank contains $2.5m^3$ of water. Express this volume in cm^3. Be careful!!

$2.5m^3 \times \frac{(100cm)^3}{(1m)^3} = 2,500,000\ cm^3$