

Name: _____

Unit Conversions - 01

#1 A handyman purchased a ladder from the Awkward Size Store that is 1.28m. Express this in feet.

#2 The face of Hagrid's cell phone is 38.25 square inches. Express this area in square feet. Express the same area in a square meters.

#3 A racing snail travels at a wicked 1.5 inches per second. Express this in miles per hour.

#4 G.I. Joe's Land-Air-Military Engine (LAME) travels on land at speeds up to 170 miles per hour. Express this in feet per minute.

#5 In the national currency of the Whereami Republic, there are 2.5 kosarks in a simpa, 8.3 simpas in a bolley and 17 bolleies to the dollar. How many simpas does Jack have in \$22.84. Round the nearest simpa. How many kozarks does Jack have?

#6 Because Elvis was getting heavier in his old age, Graceland installed a gravity machine to lower the effects of gravity so that Elvis would not feel as bad about his weight. If one Graceland (gl) was equal to 1.63 pounds, how much would a 268 lbs Elvis weigh in gl's?

#7 Apricots can be purchased for \$2.28 per pound. What is the price in cents per ounce?

#8 A magazine subscription is \$22 per year. How much is this per day? Per decade?

Name: _____

Unit Conversions - 01

#1 A handyman purchased a ladder from the Awkward Size Store that is 1.28m. Express this in feet.

$$1.28 m \cdot \frac{1.0936 yd}{1 m} \cdot \frac{3 ft}{1 yd} = 4.20 ft$$

#2 The face of Hagrid's cell phone is 38.25 square inches. Express this area in square feet. Express the same area in a square meters.

$$38.25 in^2 \cdot \left(\frac{1 ft}{12 in}\right)^2 = 38.25 in^2 \cdot \frac{1 ft^2}{144 in^2} = 0.2656 ft^2$$
$$0.2656 ft^2 \cdot \left(\frac{1 yd}{3 ft}\right)^2 \cdot \left(\frac{1 m}{1.0936 yd}\right)^2 = 0.02699 m^2$$

#3 A racing snail travels at a wicked 1.5 inches per second. Express this in miles per hour.

$$\frac{1.5 in}{sec} \cdot \frac{60 sec}{1 min} \cdot \frac{60 min}{1 hr} \cdot \frac{1 ft}{12 in} \cdot \frac{1 yd}{3 ft} \cdot \frac{1 mi}{1760 yd} = 0.085 \frac{mi}{hr}$$

#4 G.I. Joe's Land-Air-Military Engine (LAME) travels on land at speeds up to 170 miles per hour. Express this in feet per minute.

$$\frac{170 mi}{hr} \cdot \frac{1760 yd}{1 mi} \cdot \frac{3 ft}{1 yd} \cdot \frac{1 hr}{60 min} = 15,000 \frac{ft}{min}$$

#5 In the national currency of the Whereami Republic, there are 2.5 kozarks in a simpa, 8.3 simpas in a bolley and 17 bolleies to the dollar. How many simpas does Jack have in \$22.84. Round the nearest simpa. How many kozarks does Jack have?

$$\$22.84 \cdot \frac{17 Bolleys}{\$1} \cdot \frac{8.3 Simpas}{1 Bolley} = 3223 Simpas$$
$$\$22.84 \cdot \frac{17 Bolleys}{\$1} \cdot \frac{8.3 Simpas}{1 Bolley} \cdot \frac{2.5 Kosarks}{1 Simpa} = 8057 Kozarks$$

#6 Because Elvis was getting heavier in his old age, Graceland installed a gravity machine to lower the effects of gravity so that Elvis would not feel as bad about his weight. If one Graceland (gl) was equal to 1.63 pounds, how much would a 268 lbs Elvis weigh in gl's?

$$268 lbs \cdot \frac{1 gl}{1.63 lbs} = 164 gl$$

#7 Apricots can be purchased for \$2.28 per pound. What is the price in cents per ounce?

$$\frac{\$2.28}{1 lb} \cdot \frac{1 lb}{16 oz} \cdot \frac{100 cents}{\$1} = \frac{14.3 cents}{oz}$$

#8 A magazine subscription is \$22 per year. How much is this per day? Per decade?

$$\frac{\$22}{1 yr} \cdot \frac{1 yr}{365 days} = \frac{\$0.06}{day} \quad \frac{\$22}{1 yr} \cdot \frac{10 yrs}{1 decade} = \frac{\$220}{decade}$$