

1) What is my mass in lbs. if this morning I weighed 103,873 g? (1 kg = 2.20 lb.)

What is given (including units)?

What are you asked for (including units)?

What other information do you know?

Where do you start? What is the game plan?

Solve the problem!

2) Gold is amazing stuff!! A 1.50 cm^3 piece of pure gold can be made into a single wire that stretches 82.21 km in length (roughly the distance from here to Stockton). How long would that wire be in nanometers (nm)

What is given (including units)?

What are you asked for (including units)?

What other information do you know?

Where do you start? What is the game plan?

Solve the problem!

3) The speed of light is 2.998×10^{10} cm per second. What is the speed of light in miles per hour.

What is given (including units)?

What are you asked for (including units)?

What other information do you know?

Where do you start? What is the game plan?

Solve the problem!

4) It takes roughly 8.317 minutes for the light from the Sun to reach the Earth. If light travels at 2.9979×10^{10} cm per second, what is the distance in km from the Sun to the Earth?

What is given (including units)?

What are you asked for (including units)?

What other information do you know?

Where do you start? What is the game plan?

Solve the problem!

- 5) If a snail moves at 0.234 cm per second, how fast is the snail in furlongs per fortnight? (1 furlong = 660. feet and 1 fortnight = 14 days)

What is given (including units)?

What are you asked for (including units)?

What other information do you know?

Where do you start? What is the game plan?

Solve the problem!

- 6) Lake Tahoe is the 2nd deepest lake in the United States and has a volume of 156 km³. The Amazon River is the largest river in the world, with an average flow rate of 7.7351×10^6 ft³ per second. At that rate, how many days would it take for the Amazon River to fill Lake Tahoe?

What is given (including units)?

What are you asked for (including units)?

What other information do you know?

Where do you start? What is the game plan?

Solve the problem!

- 7) Other than our own sun, the closest star to the Earth, Proxima Centauri, is about 4.22 light years away. The fastest man-made spacecraft, the Helios II deep space probe, travels at a speed of 70.2 km/s. If you were on the Helios II, how many years would it take you to get Proxima Centauri? (1 light-year = 5.878×10^{12} miles, 1 km = 0.6214 mile)

What is given (including units)?

What are you asked for (including units)?

What other information do you know?

Where do you start? What is the game plan?

Solve the problem!

- 8) The standard London Gold Delivery Bar is 200.0mm long, 80.0mm wide and 45.0mm tall. As of October 23, 2009, gold was selling for \$1055.42 per troy-ounce. If gold weighs 19.3 grams per cm^3 , how much is one London Gold Delivery Bar worth? (1 troy ounce = 31.10347 g)

What is given (including units)?

What are you asked for (including units)?

What other information do you know?

Where do you start? What is the game plan?

Solve the problem!