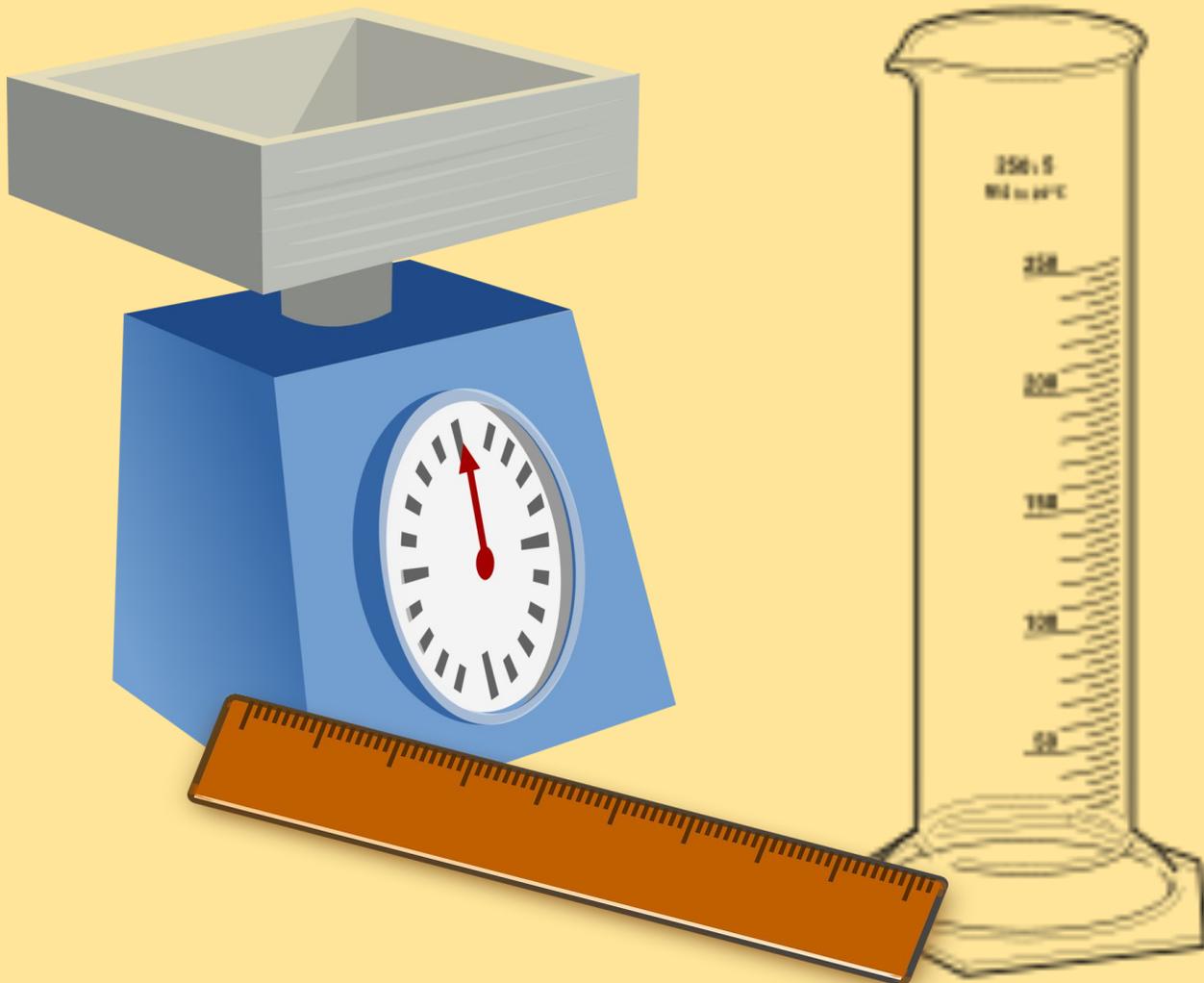


Metric Measurement Drawings



Instructions

There are 3 options from which to choose; length, mass, or liquid volume. Each set of questions will ask you to create a different picture.

Choose the correct answer for each of the following questions, then follow the instructions for what to include in your drawing. Use scratch paper to show your conversion work.



Example:

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

A. 1,000m

Draw



B. 100m

Draw



On your question paper you would circle A, on your drawing paper you would draw:



Liquid Volume Blast Off!

About how much glue is in this bottle?



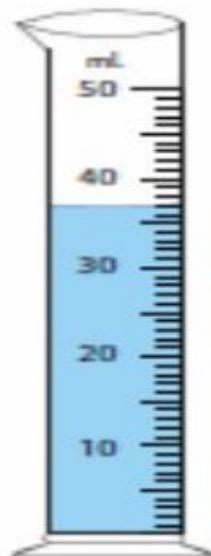
If 120 mL, draw



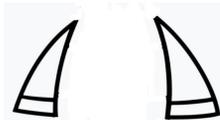
If 120 L, draw



How much water is in this graduated cylinder?



If 37 mL, draw



If 37 L, draw



2,000 mL = _____ L

If 2 L, draw windows like this.



If 20 L, draw windows like this.



5L = _____ mL

If 5,000 mL, draw a rocket booster like this.



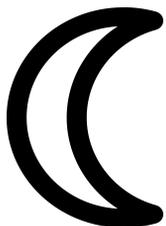
If 500 mL, draw a rocket booster like this



About how much gas is in a full tank?

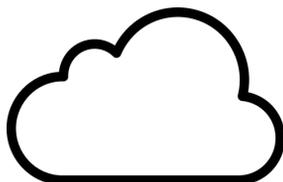


If 50 mL, draw

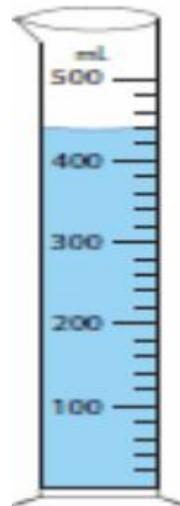


In the background

If 50 L, draw



How much water is in this graduated cylinder?



If 420 mL, draw



If 440 mL, draw



Liquid Volume Blast Off!

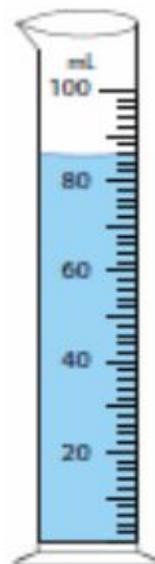
About how much paint would be in this can?



If 4L, color the rocket fins blue.

If 40 L, color the rocket fins red.

How much water is in this graduated cylinder?



If 86 mL, color the rocket body red.

If 83 L, color the rocket body blue.

1,500 mL = _____ L

If 15 L, color the windows blue.

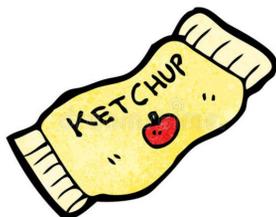
If 1.5 L, color the windows grey.

5.23 L = _____ mL

If 52,300 mL, color the rocket boosters yellow.

If 5,230 mL, color the rocket boosters orange.

About how much ketchup is in a packet?



If 800 mL, write

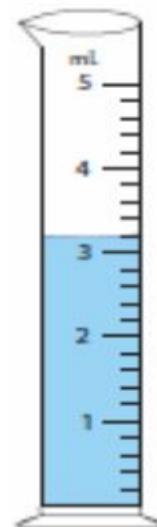
Let's Launch!

In the background

If 8 mL, write

Off to Space!

How much water is in this graduated cylinder?



If 3.1 mL, color the background light blue.

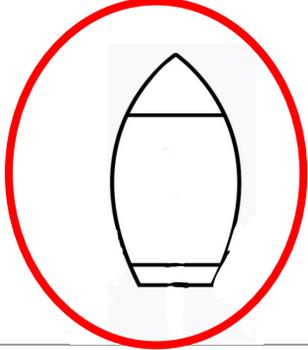
If 3.2 L, color the background black.

Liquid Volume Blast Off!- KEY

About how much glue is in this bottle?



If 120 mL, draw



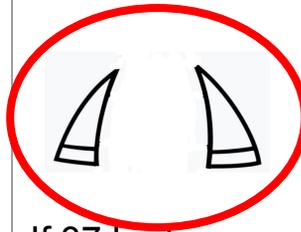
If 120 L, draw



How much water is in this graduated cylinder?



If 37 mL, draw

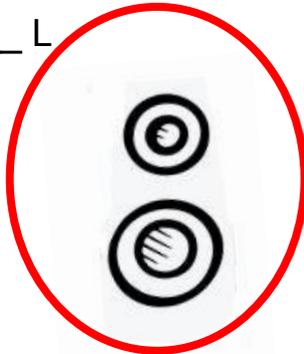


If 37 L, draw



2,000 mL = _____ L

If 2 L, draw windows like this.

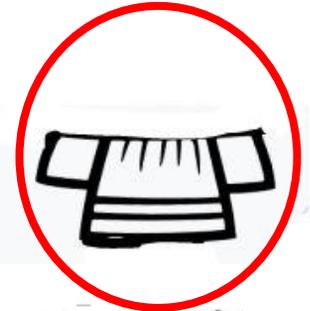


If 20 L, draw windows like this.



5L = _____ mL

If 5,000 mL, draw a rocket booster like this.



If 500 mL, draw a rocket booster like this



About how much gas is in a full tank?



If 50 mL, draw

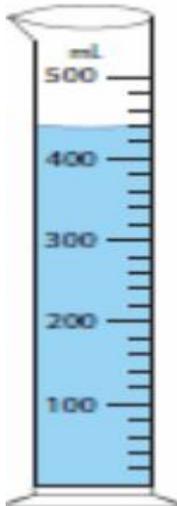


If 50 L, draw



In the background

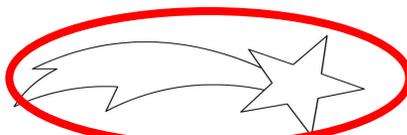
How much water is in this graduated cylinder?



If 420 mL, draw



If 440 mL, draw



Liquid Volume Blast Off!- KEY

About how much paint would be in this can?



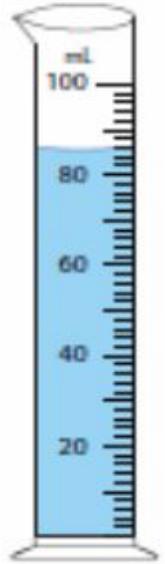
If 4L, color the rocket fins blue.

If 40 L, color the rocket fins red.

How much water is in this graduated cylinder?

If 86 mL, color the rocket body red.

If 83 L, color the rocket body blue.



1,500 mL = _____ L

If 15 L, color the windows blue.

If 1.5 L, color the windows grey.

5.23 L = _____ mL

If 52,300 mL, color the rocket boosters yellow.

If 5,230 mL, color the rocket boosters orange.

About how much ketchup is in a packet?



If 800 mL, write

Let's Launch!

If 8 mL, write

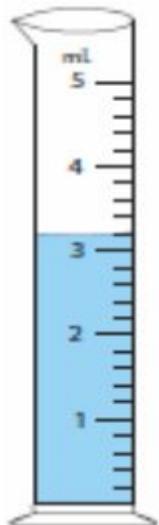
Off to Space!

In the background

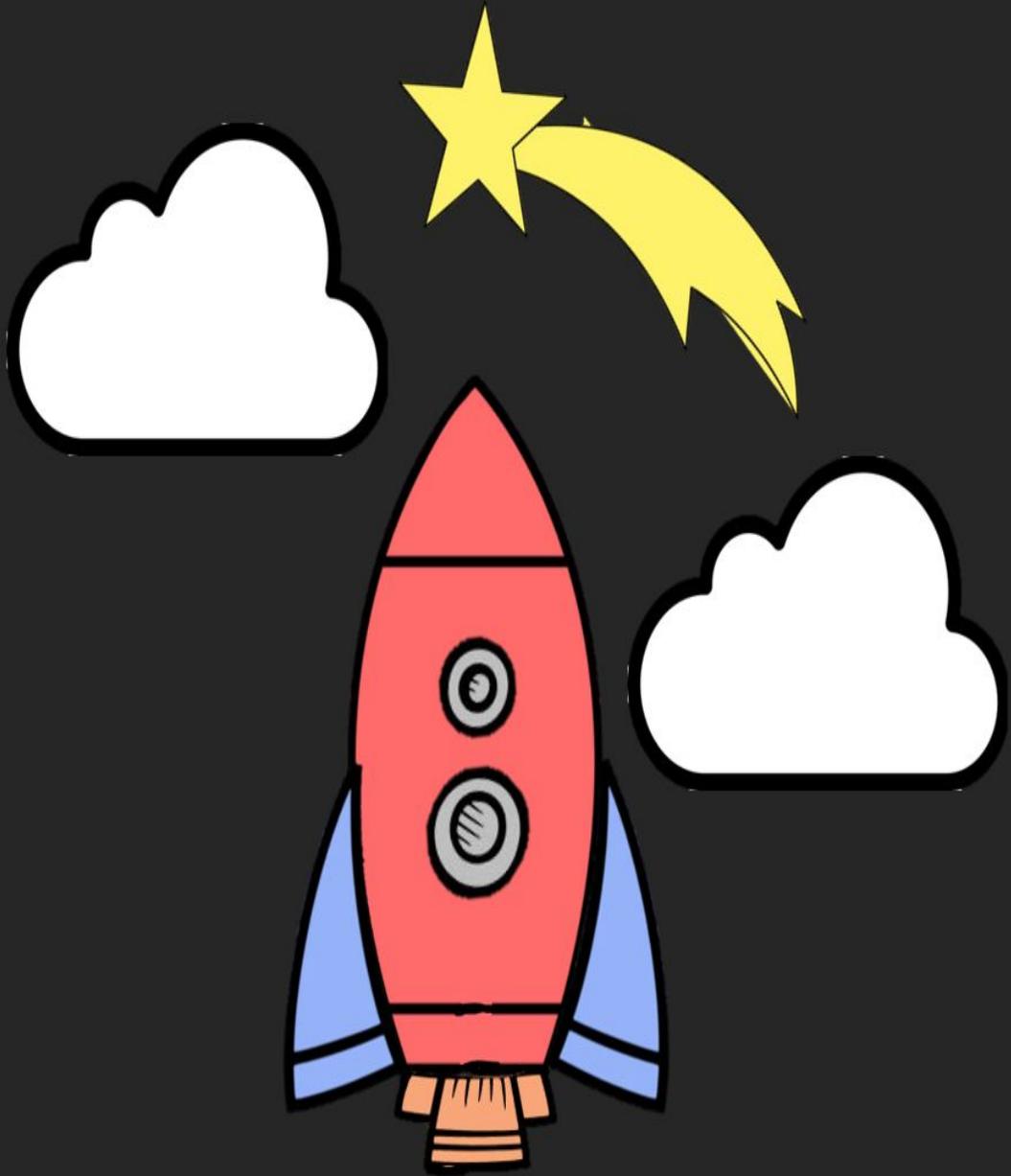
How much water is in this graduated cylinder?

If 3.1 mL, color the background light blue.

If 3.2 L, color the background black.



Liquid Volume Blast Off!- KEY



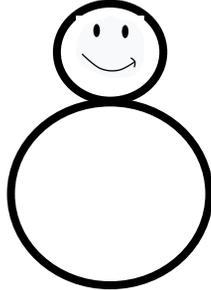
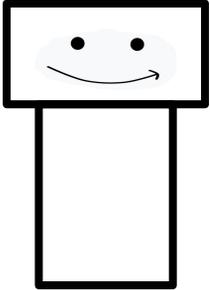
Off to Space!

Robotic Length!

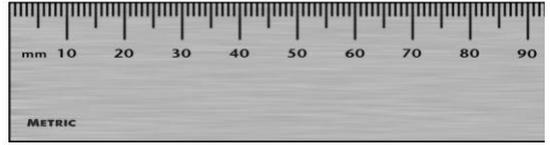
Which would be best to measure the distance from Nampa to Boise?

If kilometers, draw

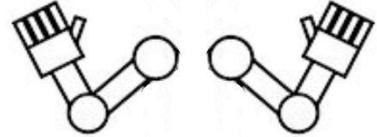
If meters, draw



To what measurement is the arrow pointing?



If 50.5 mm, draw



If 55 mm, draw

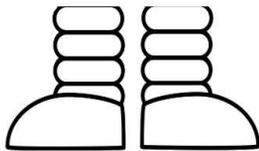


6.3 km = _____ m

If 630 m, draw

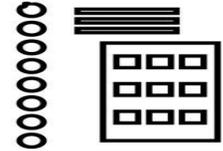


If 6,300 m, draw

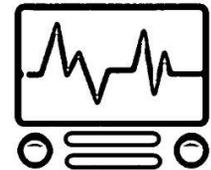


50 cm = _____ mm

If 5 mm, draw



If 500 mm, draw



Which would be best to measure the length of your classroom?

If meters, write

If centimeters, write

All Geared Up!

Ready to Roll!

In the background

To what measurement is the arrow pointing?

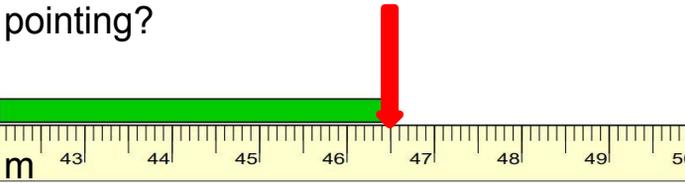


If 1.7 cm, color the head and body light grey.

If 17 cm, color the head and body dark grey.

Robotic Length!

To what measurement is the arrow pointing?



If 465 cm, color the arms purple.

If 46.5 cm color the arms green.

7 m = _____ cm

If 700 cm, color the legs blue.

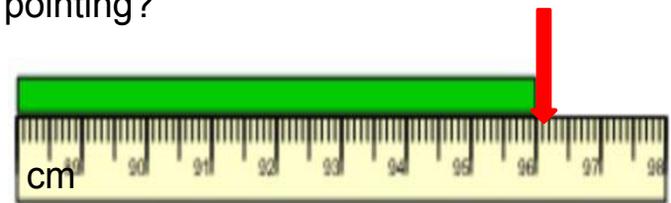
If 7,000 cm, color the legs red.

Which would be best to measure the length of your pencil?

If millimeters, color the buttons red.

If centimeters, color the buttons green.

To what measurement is the arrow pointing?



If 0.96m, then color the background light blue.

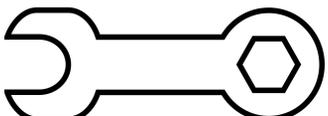
If 96m, then color the background light green.

8,900 mm = _____ m

If 89 m, draw



If 8.9 m, draw



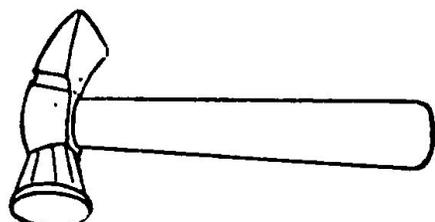
In the background.

Which would be best to measure the length of an ant?

If mm, draw



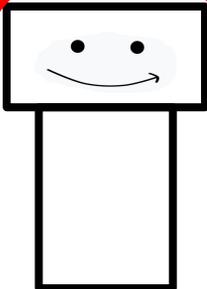
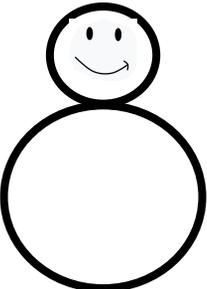
If cm,



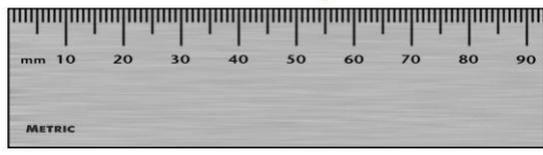
In the background.

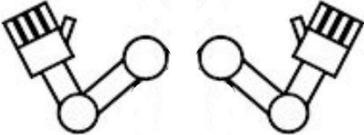
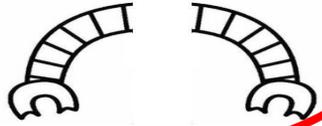
Robotic Length!- KEY

Which would be best to measure the distance from Nampa to Boise?

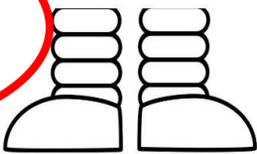
If kilometers, draw  If meters, draw 

To what measurement is the arrow pointing?

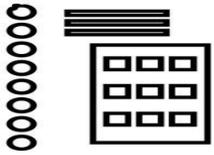
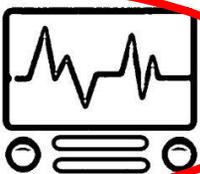


If 50.5 mm, draw  If 55 mm, draw 

6.3 km = _____ m

If 630 m, draw  If 6,300 m, draw 

50 cm = _____ mm

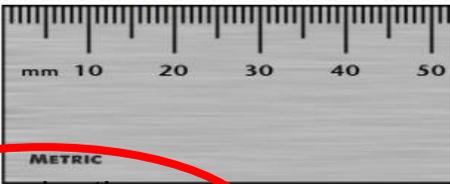
If 5 mm, draw  If 500 mm, draw 

Which would be best to measure the length of your classroom?

If meters, write **All Geared Up!** If centimeters, write **Ready to Roll!**

In the background

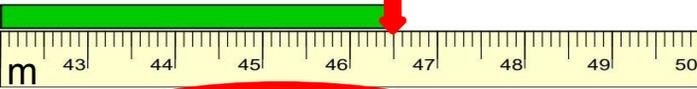
To what measurement is the arrow pointing?



If 1.7 cm, color the head and body light grey. If 17 cm, color the head and body dark grey.

Robotic Length!- KEY

To what measurement is the arrow pointing?



If 465 cm, color the arms purple.

If 46.5 cm color the arms green.

7 m = _____ cm

If 700 cm, color the legs blue.

If 7,000 cm, color the legs red.

Which would be best to measure the length of your pencil?

If millimeters, color the buttons red.

If centimeters, color the buttons green.

To what measurement is the arrow pointing?



If 0.96m, then color the background light blue.

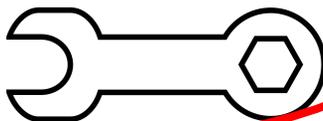
If 96m, then color the background light green.

8,900 mm = _____ m

If 89 m, draw



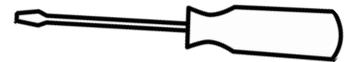
If 8.9 m, draw



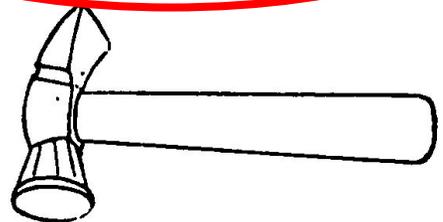
In the background.

Which would be best to measure the length of an ant?

If mm, draw



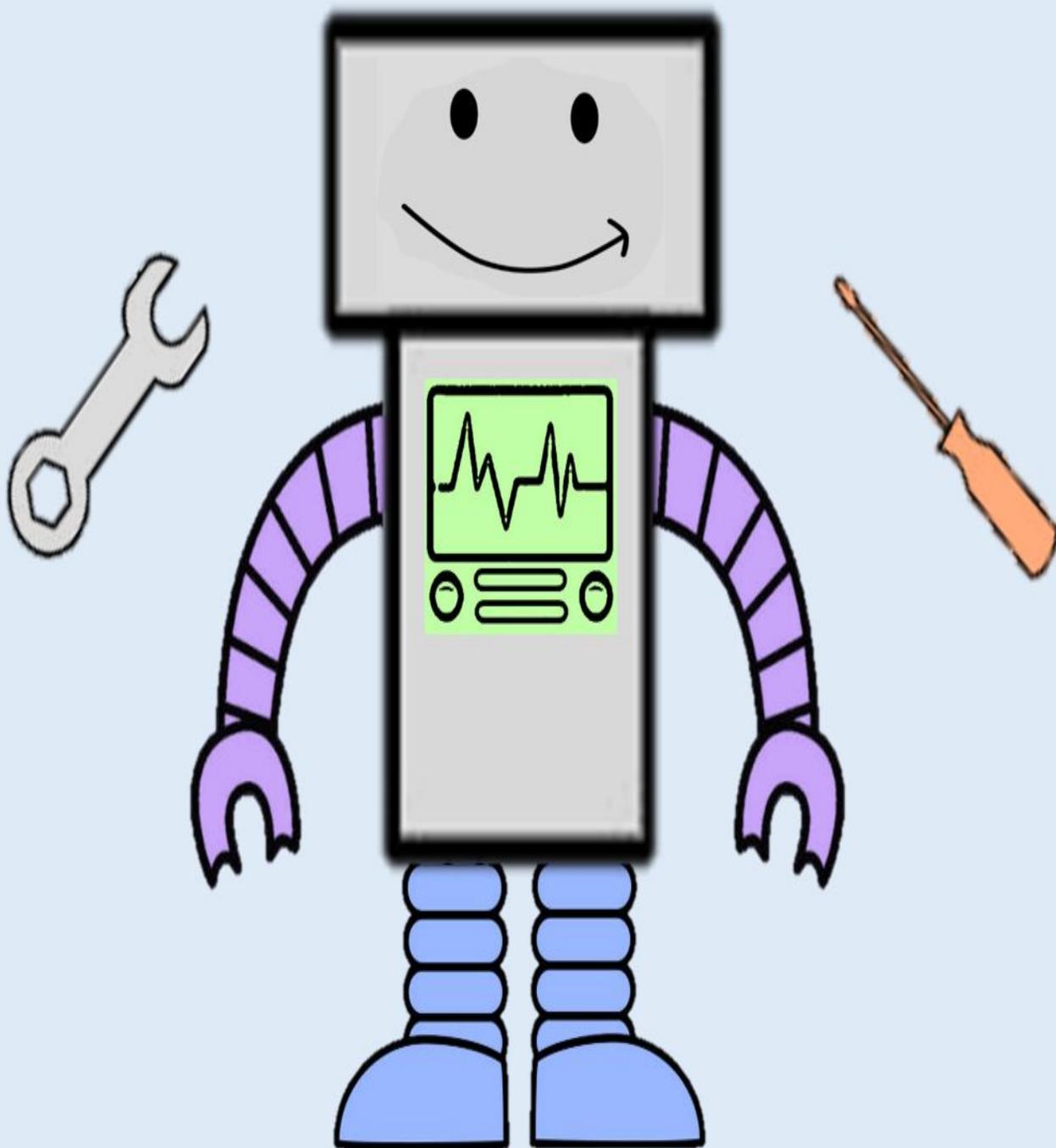
If cm,



In the background.

Robotic Length!- KEY

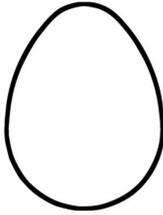
All Geared Up!



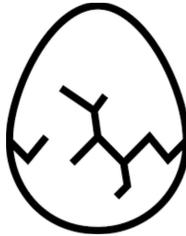
Eggbert and Mass!

How many grams are in a megagram?

If 10,000 g, draw



If 1,000 g, draw



What is the best estimate of the weight of this object?



If 20 kg, draw

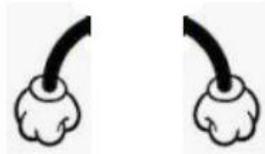


If 20 g, draw

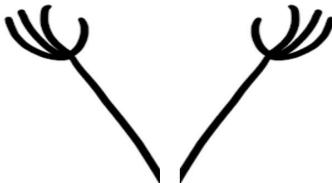


174,000 mg = _____ g

If 117.4 g, draw



If 174 g, draw.

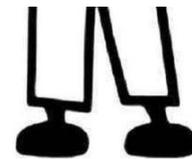


24,000 g = _____ kg

If 24 kg, draw

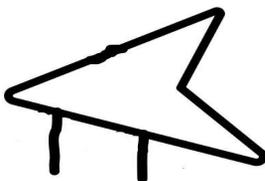


If 240 kg, draw



Which would be best to use when weighing food for a dinner recipe?

If kilograms, draw



If grams, draw



What is the best estimate of the weight of this object?



If 20 mg, color the egg light yellow.

If 20 g, color the egg light brown.

Egbert and Mass!

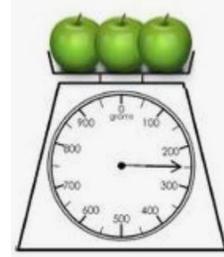
What is the appropriate unit of measure to weigh a human being?



If milligrams, color Egbert's shoes green.

If kilograms, color Egbert's shoes brown.

How much do these apples weigh?



If 250 mg, color Egbert's safety gear orange.

If 250 grams, color Egbert's safety gear pink.

23 kg = _____ g

If 230 g, draw



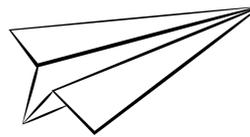
If 23,000 g, draw



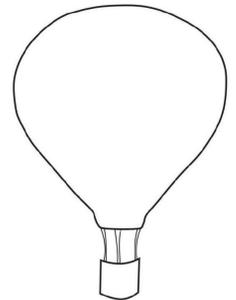
In the background

5.23 g = _____ mg

If 52,300 mg, draw



If 5,230 mg, draw



In the background

How much does this orange weigh?



If 15g, write

If 150g, write

Am-egg-zing!

Egg-cellent!

In the background

Which object would best be measured in megagrams?

If it is this color the background purple.



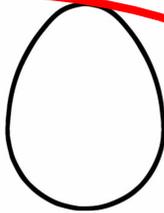
If it is this, color the background orange.



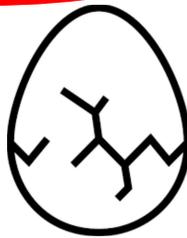
Eggbert and Mass!- KEY

How many grams are in a megagram?

If 10,000 g, draw



If 1,000 g, draw



What is the best estimate of the weight of this object?



If 20 kg, draw

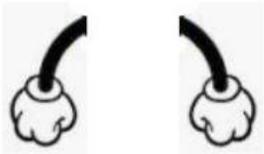


If 20 g, draw



174,000 mg = _____ g

If 117.4 g, draw



If 174 g, draw

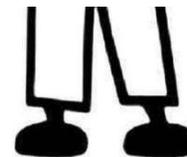


24,000 g = _____ kg

If 24 kg, draw

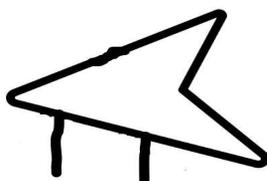


If 240 kg, draw

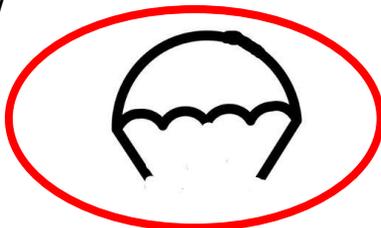


Which would be best to use when weighing food for a dinner recipe?

If kilograms, draw



If grams, draw



What is the best estimate of the weight of this object?



If 20 mg, color the egg light yellow

If 20 g, color the egg light brown.

Egbert and Mass!- KEY

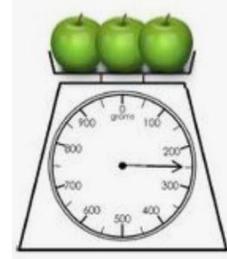
What is the appropriate unit of measure to weigh a human being?



If milligrams, color Egbert's shoes green.

If kilograms, color Egbert's shoes brown.

How much do these apples weigh?



If 250 mg, color Egbert's safety gear orange.

If 250 grams, color Egbert's safety gear pink.

23 kg = _____ g

If 230 g, draw



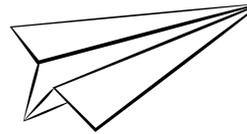
If 23,000 g, draw



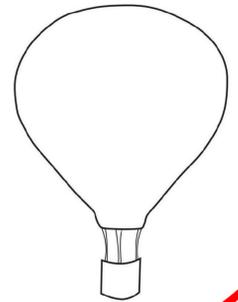
In the background

5.23 g = _____ mg

If 52,300 mg, draw



If 5,230 mg, draw



In the background

How much does this orange weigh?



If 15g, write

Am-egg-zing!

In the background

If 150g, write

Egg-cellent!

Which object would best be measured in megagrams?

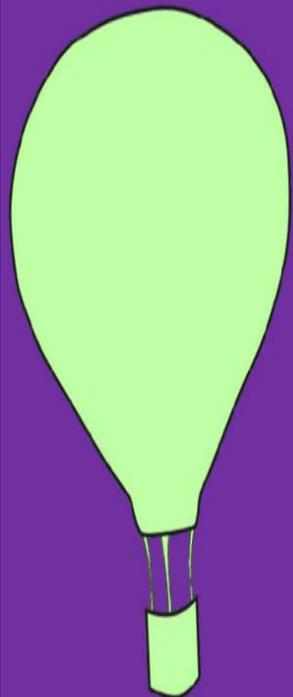
If it is this color the background purple



If it is this, color the background orange.



Eggbert and Mass!- KEY



Egg-cellent!