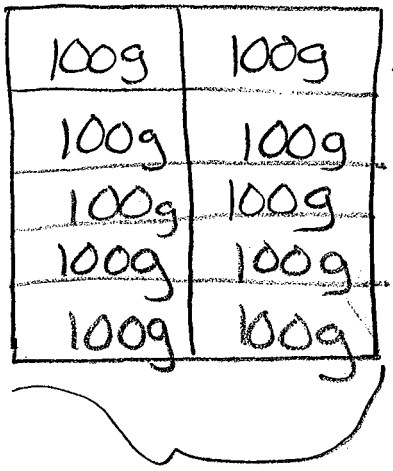
Name _____ Date _____

Ten bags of sugar weigh 1 kilogram. How many grams does each bag of sugar weigh?



<- 1 bag of sugar

Each bag of sugar weighs 100 grams.

1 Kilogram
10 bags of Sugar

Name _____ Date _____

1. Use the chart to help you answer the following questions:

1 kilogram	100 grams	10 grams	1 gram
thousands	hundreds	tens	ones

a. Isaiah puts a **10 gram** weight on a pan balance. How many **1 gram** weights does he need to balance the scale?

Isaiah needs 10 1gram weights to balance the scale.

b. Next, Isaiah puts a **100 gram** weight on a pan balance. How many **10 gram** weights does he need to balance the scale?

Isaiah needs 10 10gram weights to balance the scale.

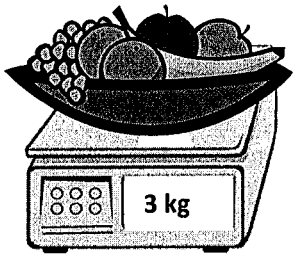
c. Isaiah then puts a **kilogram** weight on a pan balance. How many **100 gram** weights does he need to balance the scale?

Isaiah needs 10 100gram weights to balance the scale.

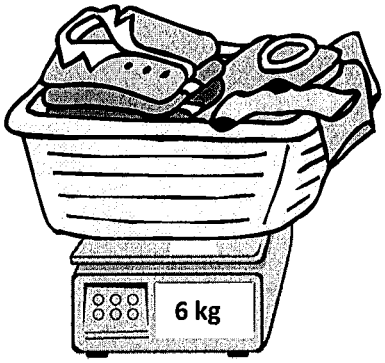
d. What pattern do you notice in Parts (a–c)?

Each time Isaiah needed 10 times the amount to balance the scale.

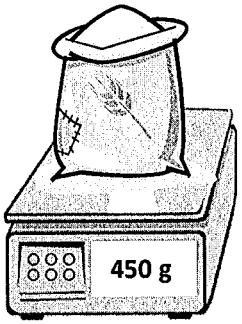
2. Read each digital scale. Write each weight using the word *kilogram* or *gram* for each measurement.



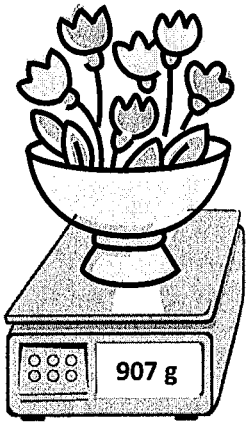
3 kilogram



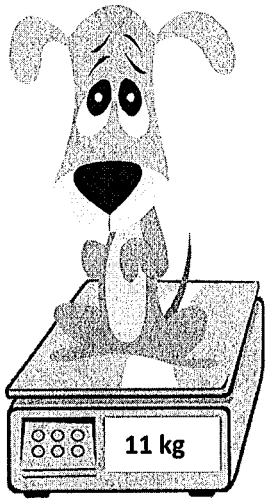
6 kilogram



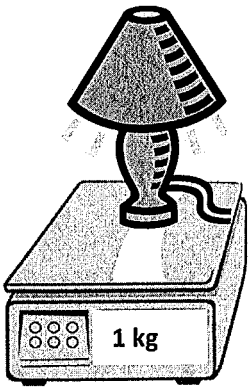
450 grams



907 grams



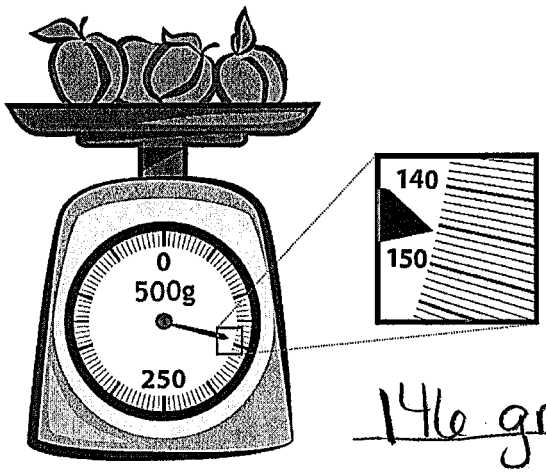
11 kilograms



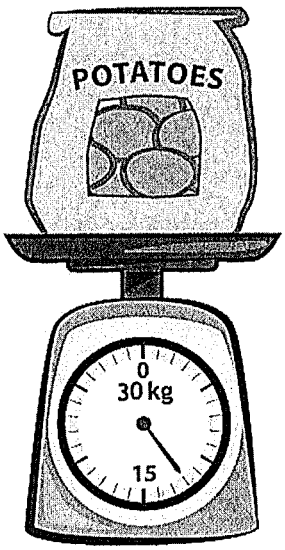
1 kilograms

Name _____ Date _____

1. Read and write each weight shown on the scales below.



146 grams



8 kilograms

2. Circle the correct unit of weight for each estimation.

   a. An orange weighs about 200 (grams / kilograms).

   b. A basketball weighs about 624 (grams / kilograms).

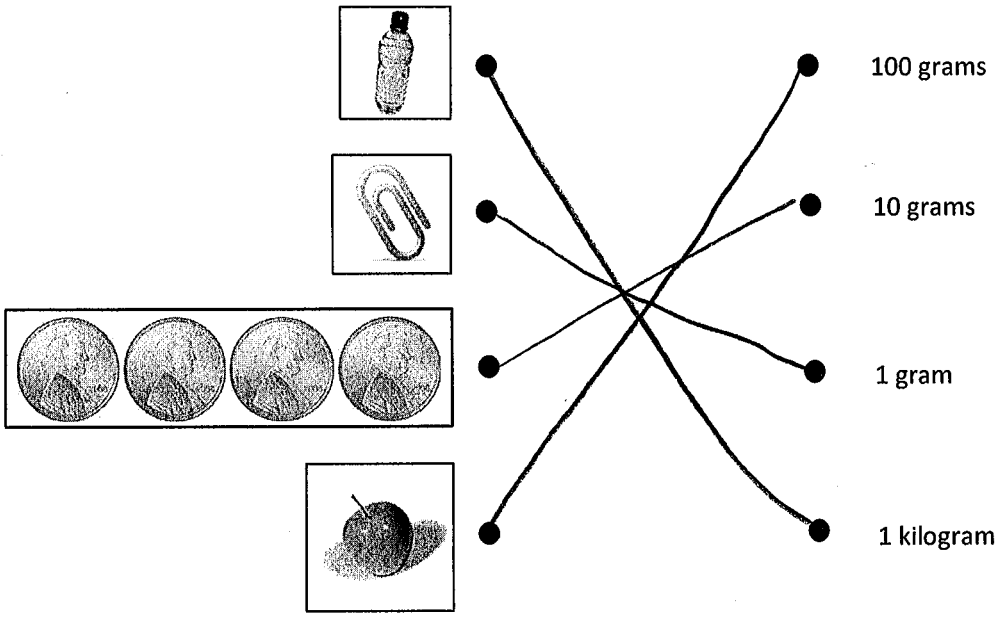
   c. A brick weighs about 2 (grams / kilograms).

   d. A small packet of sugar weighs about 4 (grams / kilograms).

   e. A tiger weighs about 190 (grams / kilograms).

Name _____ Date _____

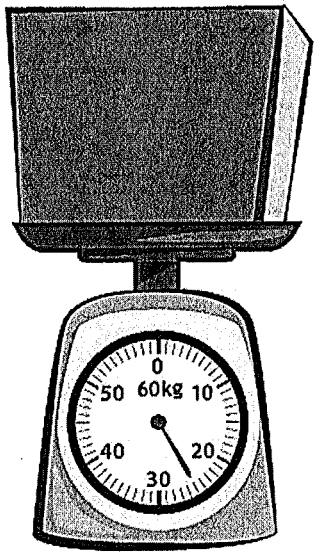
1. Match the object with its approximate weight.



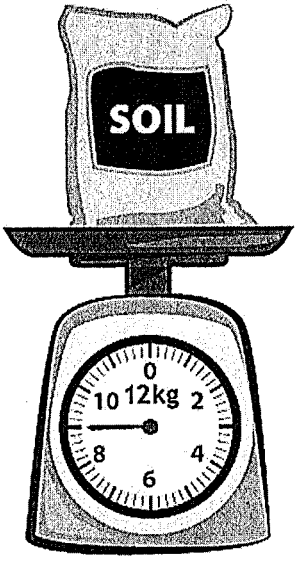
2. Alicia and Jeremy weigh a cell phone on a digital scale. They write down 113 but forget to record the unit. Which unit of measurement is correct? How do you know?

113 grams is correct because Kilograms would be too large.
Example: 113 Kilograms would be the size of about 113 water bottles.

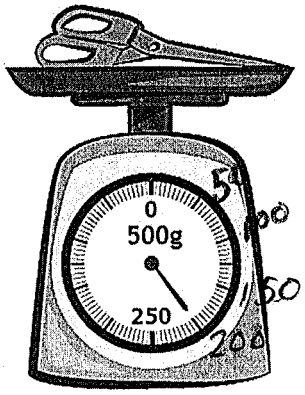
3. Read and write the weights below. Write the word *kilogram* or *gram* with the measurement.



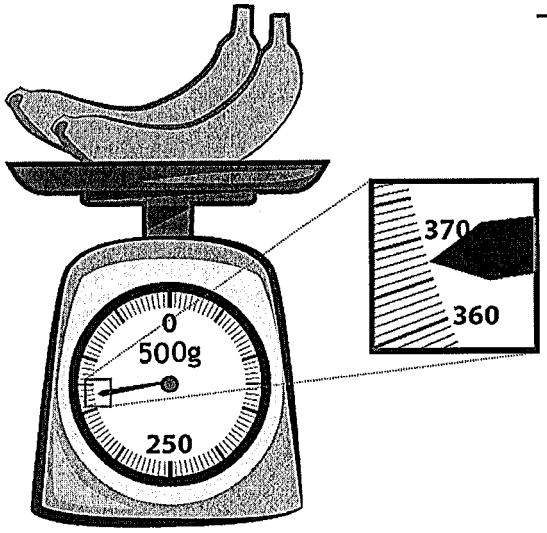
25 kilograms



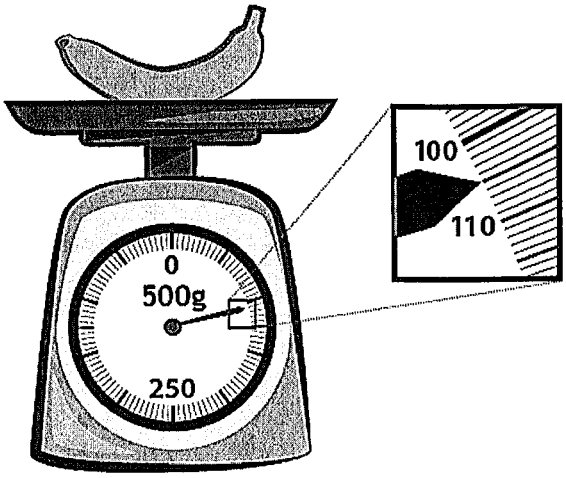
9 kilograms



200 grams



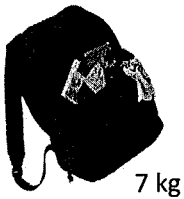
367 grams

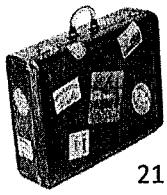


105 grams

Name _____ Date _____

The weights of a backpack and suitcase are shown below.


7 kg


21 kg

a. How much heavier is the suitcase than the backpack?

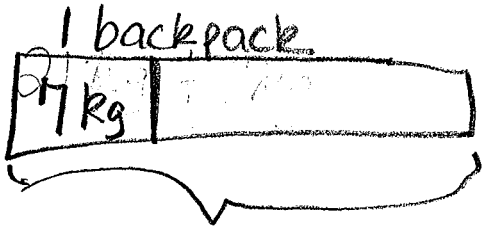
21 kg - 7 kg = 14 kg

b. What is total weight of 4 identical backpacks?

7 kg × 4 = 28 or 7 + 7 + 7 + 7

14 + 14 = 28

c. How many backpacks weigh the same as one suitcase?



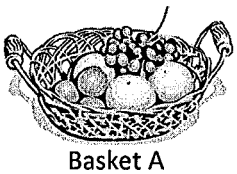
21 kg
1 suitcase
? backpacks

21 ÷ 7 = 3

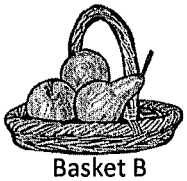
3 backpacks weigh as much as one suitcase.

Name _____ Date _____

1. The weights of 3 fruit baskets are shown below.



Basket A
12kg



Basket B
8kg

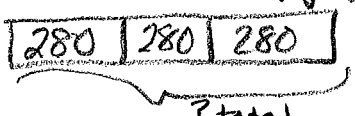
Basket C
16kg

a. Basket C is the heaviest.
b. Basket B is the lightest.
c. Basket A is 4 kilograms heavier than Basket B. 12 - 8
d. What is the total weight of all three baskets?

12 + 8 + 16
20 + 16 = 36 kg

2. Each journal weighs about 280 grams. What is total weight of 3 journals? 1 journal

280g x 3

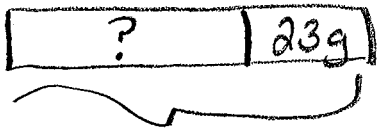


200 + 200 + 200 = 600
(200 x 3)
80 + 80 + 80 = 240
(80 x 3)

600 + 240 = 840 g

3 journals weigh 840g.

3. Ms. Rios buys 453 grams of strawberries. She has 23 grams left after making smoothies. How many grams of strawberries did she use?

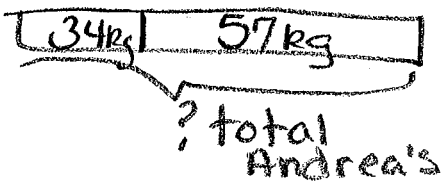


453 - 23 =
453 - 20 = 433
433 - 3 = 430

Ms. Rios uses 430 g of strawberries.

4. Andrea's dad is 57 kilograms heavier than Andrea. Andrea weighs 34 kilograms.

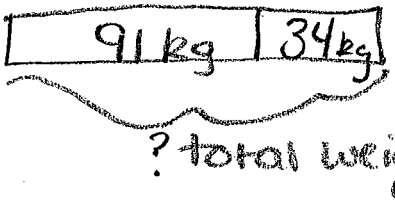
   a. How much does Andrea's dad weigh?



34+57
30+50=80
4+7=11
80+11=91 kg

Andrea's dad weighs 91 kg.

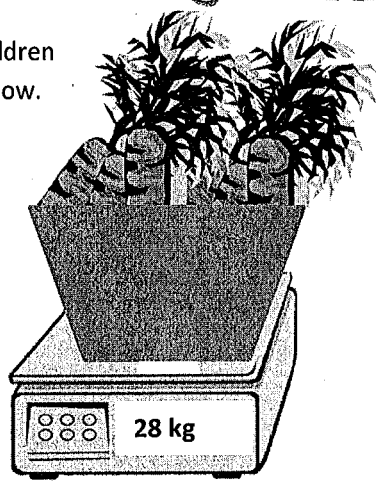
   b. How much do Andrea and her dad weigh in total?



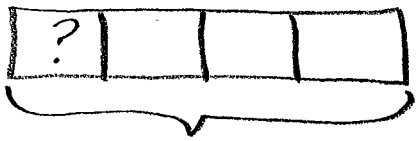
91+34
90+30=120
1+4=5
120+5=125 kg

Andrea and her dad weigh 125 kg.

5. Jennifer's grandmother buys carrots at the farm stand. She and her 3 grandchildren equally share the carrots. The total weight of the carrots she buys is shown below.



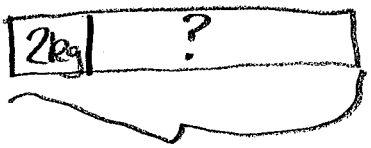
   a. How many kilograms of carrots will Jennifer get?



28÷4=7

Jennifer will get 7kg of carrots.

   b. Jennifer uses 2 kilograms of carrots to bake muffins. How many kilograms of carrots does she have left?



7-2=5

Jennifer has 5kg of carrots left.

Name _____ Date _____

1. Morgan fills a 1-liter jar with water from the pond. She uses a 100-mL cup to scoop water out of the pond and pour it into the jar. How many times will Morgan scoop water from the pond to fill the jar?

10 times

1 liter = 1,000 mL

1,000 mL ÷ 100 mL = 10

100 ml	200 ml	300 ml	400 ml	500 ml
600 ml	700 ml	800 ml	900 ml	1,000 ml

= 1 liter

2. How many groups of 10 mL are in 1 liter? Explain.

1 liter = 1,000 mL

1,000 mL ÷ 10 mL = 100 mL

There are 100 groups of 10 mL in 1 liter.

Name _____ Date _____

1. Find containers at home that have a capacity of about 1 liter. Use the labels on containers to help you identify them.

a. Answers Vary

Name of Container
Example: Carton of Orange Juice

b. Sketch the containers. How do their size and shape compare?

Some may be tall and skinny while some may be short and wide.

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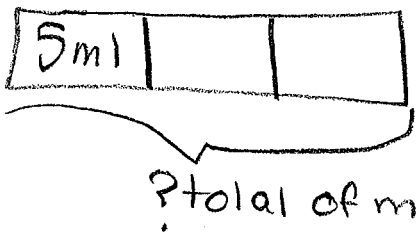
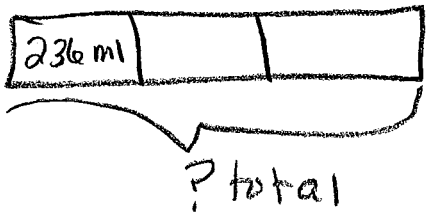
2. The doctor prescribes Mrs. Larson 5 milliliters of medicine each day for 3 days. How many milliliters of medicine will she take altogether?



5 x 3 = 15

Mrs. Larson will take 15 mL of medicine.

3. Mrs. Goldstein pours 3 juice boxes into a bowl to make punch. Each juice box holds 236 milliliters. How much juice does Mrs. Goldstein pour into the bowl?



236×3 or $236 + 236 + 236$

$200 + 200 + 200 = 600$

$30 + 30 + 30 = 90$

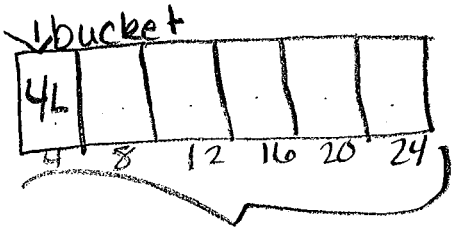
$6 + 6 + 6 = 12$

$600 + 90 + 12 =$

$690 + 12 = 702$

Mrs. Goldstein pours 702 ml of juice.

4. Daniel's fish tank holds 24 liters of water. He uses a 4-liter bucket to fill the tank. How many buckets of water are needed to fill the tank?



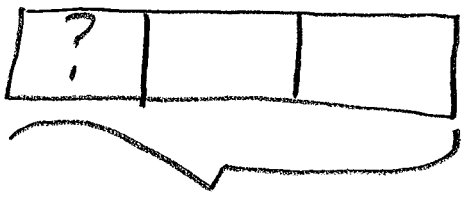
24 L of water

? total buckets

$24 \div 4 = 6$

Daniel needs 6 buckets of water.

5. Sheila buys 15 liters of paint to paint her house. She pours the paint equally into 3 buckets. How many liters of paint are in each bucket?



15L of paint

3 buckets

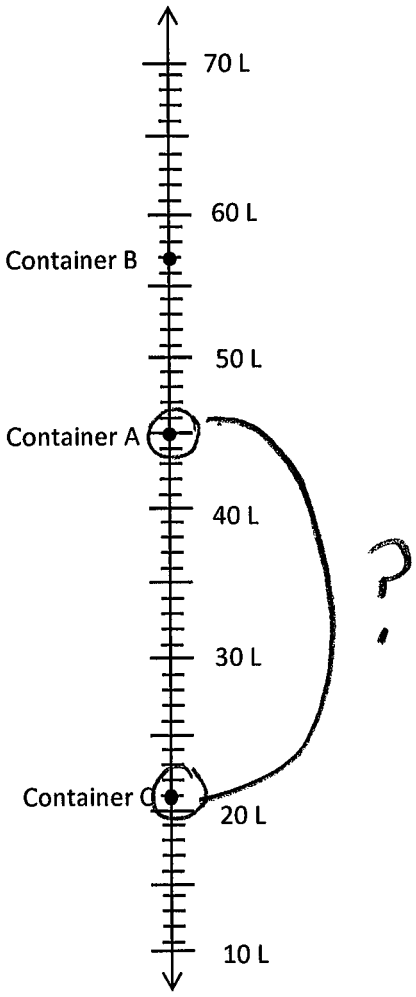
$15 \div 3 = 5$

5L of paint in each bucket.

Name _____ Date _____

1. Use the number line to record the capacity of the containers.

Container	Capacity in liters
A	45 L
B	57 L
C	21 L



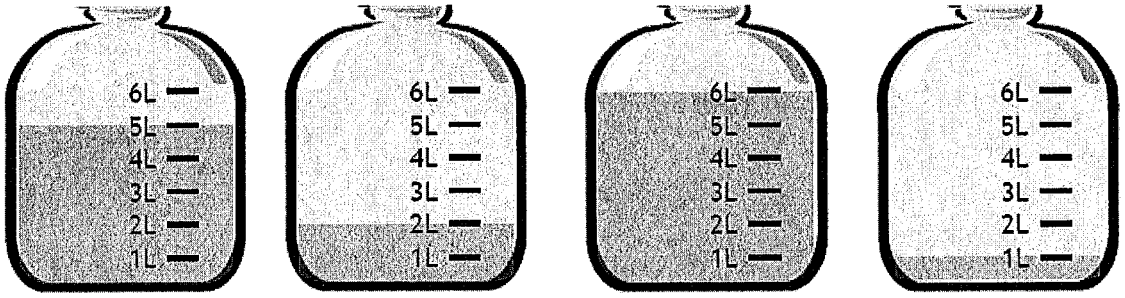
2. What is the difference between the capacity of Container A and Container C?

45 - 21
45 - 20 = 25
25 - 1 = 24 L

The difference between the capacity of Container A and C is 24 L.

Name_____ Date _____

1. How much liquid is in each container?

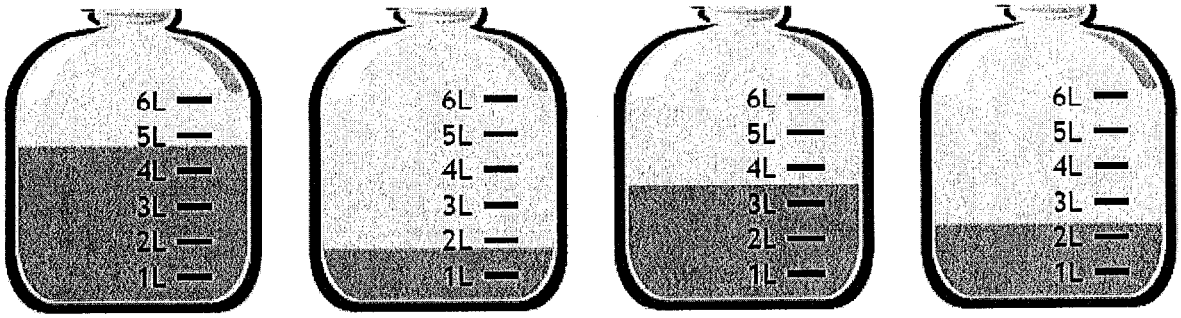


5 liters 2 liters 6 liters 1 liter

2. Jon pours the contents of Container 1 into Container 3. How much liquid is in Container 3 after he pours the liquid?

5 + 6 = 11 L

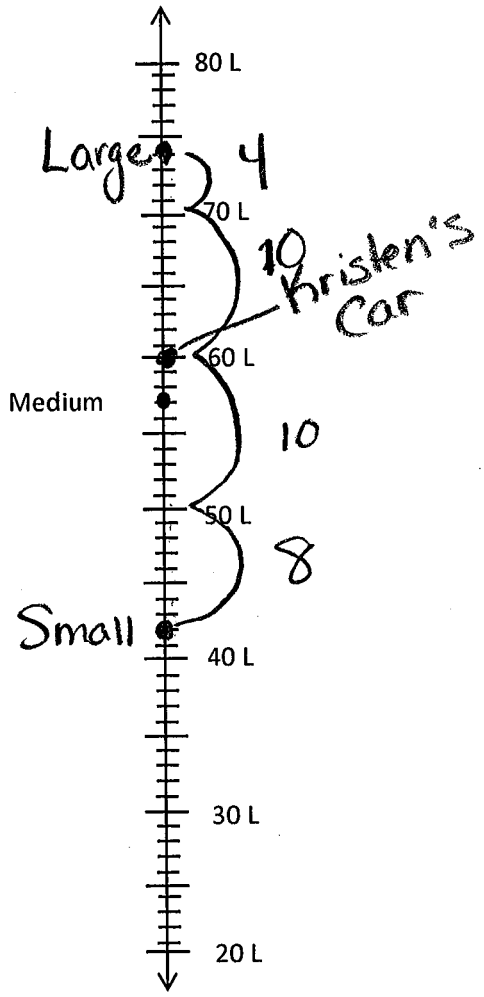
3. Estimate the amount of liquid in each container to the nearest liter.



5 liters 2 liters 4 liters 2 liters

4. Kristen is comparing the capacity of gas tanks of cars. Use the chart below to answer the questions.

Size of car	Capacity in liters
Large	74
Medium	57
Small	42



a. Label the number line to show the capacity of each gas tank. The medium car has been done for you.

b. Which car's gas tank has the greatest capacity?

Large Car

c. Which car's gas tank has the least capacity?

Small Car

d. Kristen's car has a gas tank capacity of about 60 liters. Which car from the chart has about the same capacity as Kristen's car?

Medium Car

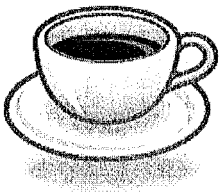
e. Use the number line to find how many more liters the large car's tank holds than the small car's tank.

10 + 10 + 8 + 4

20 + 12 = 32 more liters

Name _____ Date _____

1. The capacities of three cups are shown below.



Cup A
160 mL

Cup B
280 mL

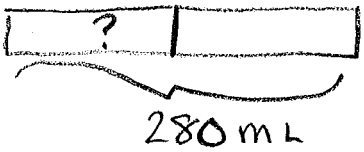
Cup C
237 mL

a. Find the total capacity of the three cups.

160 + 280 + 237
100 + 200 + 200 = 500
60 + 80 + 30 = 170

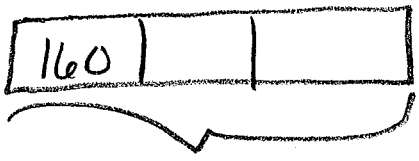
170 + 500 = 670
670 + 7 = 677 mL

b. Bill drinks exactly half of Cup B. How much is left in Cup B?



280 ÷ 2 = 140 mL

c. Anna drinks 3 cups of tea in Cup A. How much tea does she drink in total?



160ml x 3 =
160 + 160 + 160
100 + 100 + 100 = 300
60 + 60 + 60 = 180
300 + 180 = 480

Anna drinks 480 ml in total.

Name _____ Date _____

1. Karina goes on a hike. She brings a notebook, a pencil, and a camera. The weight of each item is shown in the chart. What is the total weight of all three items?

Item	Weight
Notebook	312 g
Pencil	10 g
Camera	365 g

312 + 10 + 365

300 + 300 = 600

10 + 10 + 60 = 80

2 + 5 = 7

600 + 80 + 7 = 687

The total weight is 687 grams.

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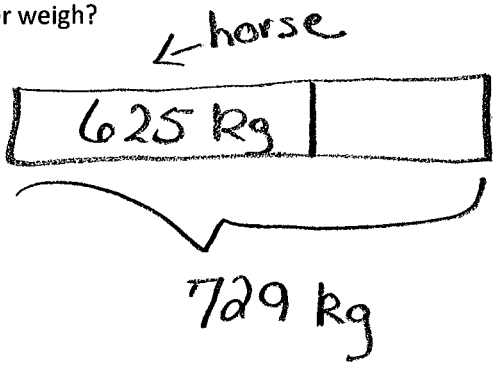
2. Together a horse and its rider weigh 729 kilograms. The horse weighs 625 kilograms. How much does the rider weigh?



729 − 625 =

700 − 600 = 100

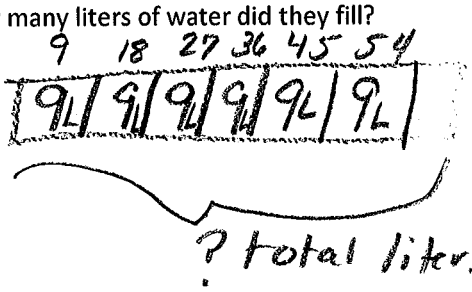
20 − 20 = 0

9 − 5 = 4

100 + 4 = 104

The rider weighs 104 kilograms.

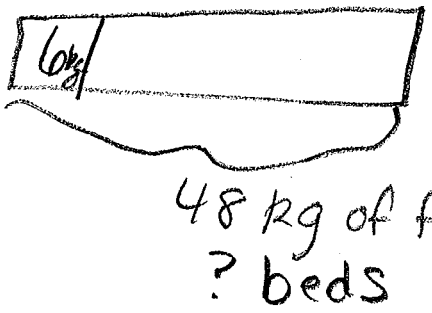
3. Theresa's soccer team fills up 6 water coolers before the game. Each water cooler holds 9 liters of water. How many liters of water did they fill?



$9 \times 6 = 54$

They filled 54 liters of water.

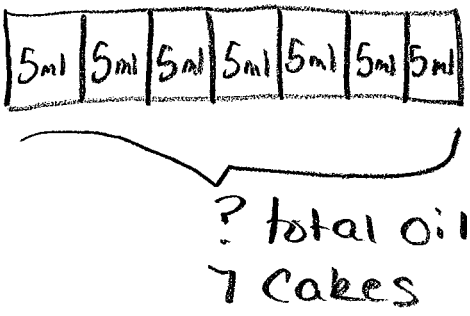
4. Dwight purchased 48 kilograms of fertilizer for his garden. He needs 6 kilograms of fertilizer for each bed of vegetables. How many beds of vegetables can he fertilize?



$48 \div 6 = 8$

Dwight can fertilize 8 vegetable beds.

5. Nancy bakes 7 cakes for the school bake sale. Each cake requires 5 milliliters of oil. How many milliliters of oil does she use?



$7 \times 5 = 35$

Nancy uses 35 ml of oil.