

Mathematics

Topic 3: Measurement Tasks

Topic 3: Measurement Tasks

1. Unscramble the letters to make words about **measurement** that match each definition.

a)	The weight of something without its container.	ten	
b)	A thing that you can see and touch that is not alive and is usually solid.	bejcto	
c)	Thin rope, usually made of twisted fibres and used for tying things together.	gritsn	
d)	To make or grow something, especially in large quantities and in order to be sold.	dropuce	
e)	The amount of something.	tiquynat	
f)	A shape with four straight sides and four angles of 90 degrees.	trecglane	
g)	An object used for measuring or for drawing straight lines, consisting of a long flat piece of plastic, wood, or metal marked with units of measurement.	leurr	
h)	The outer form of something.	pashe	

2. Use the information in the table on **height** to fill in the gaps in the sentences.

difference	shorter	shortest	shoulder	tallest	taller
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Animal	Shoulder height
African elephant	330 cm
Buffalo	150 cm
Bushbuck	80 cm
Giraffe	500 cm
Hippopotamus	150 cm

Animal	Shoulder height
Mongoose	30 cm
Blue duiker	35 cm
Lion	120 cm
Mountain gorilla	170 cm
Black rhino	160 cm

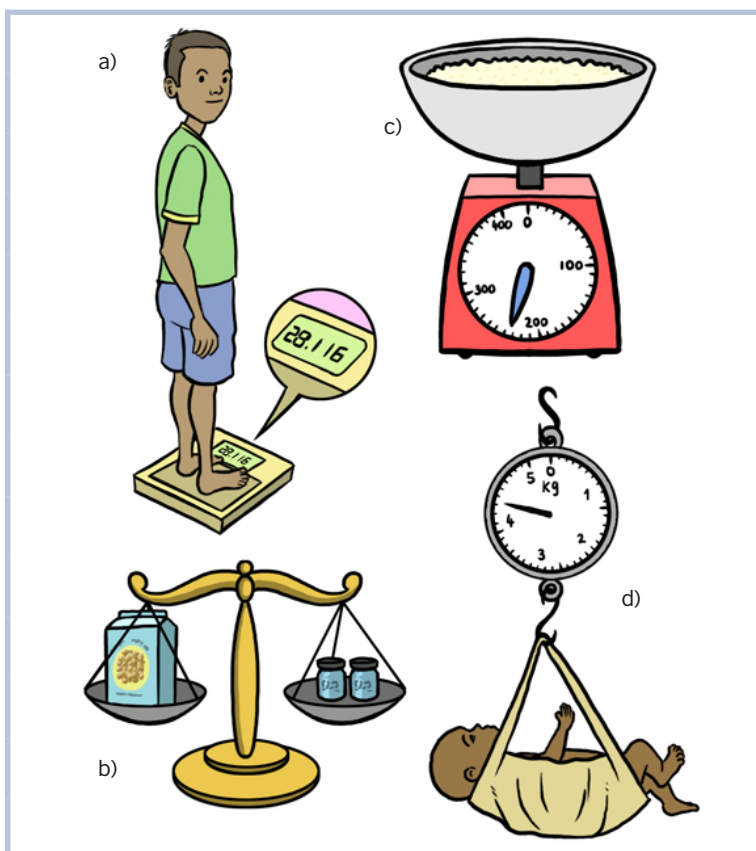
- a) The _____ animal is the giraffe.
b) The _____ animal is the mongoose.
c) The buffalo and the hippopotamus have the same _____ height.
d) The African elephant is 250cm _____ than the bushbuck.
e) The _____ between the mountain gorilla and the mongoose is 140cm.
f) The lion is _____ than the black rhino by 40cm.

3. Mark each sentence on **measuring mass** true (T) or false (F) based on the table.

kg	hg	dag	g	dg	cg	mg
			1	0	0	0
	1	0	0			
1	0	0	0			
		1	0	0	0	0

a)	There are one thousand grams in a hectogram.	
b)	There are ten thousand milligrams in one decagram.	
c)	There are one thousand grams in one kilogram.	
d)	There are one hundred milligrams in a gram.	
e)	There are ten grams in one decagram.	
f)	There are ten decagrams in one hectogram.	
g)	There are one hundred hectograms in one kilogram.	

4. Match the types of **scales** with the words by writing the letters in the grid.



bathroom scales	
pan scale	
spring balance	
weight balance	

5. Answer the questions based on the table on **measuring distance**.

km ²		hm ²		dam ²		m ²		dm ²		cm ²		mm ²	
											1	0	0
									1	0	0	0	0
							1	0	0	0	0		
					1	0	0	0	0	0	0	0	0
			1	0	0	0	0						
	1	0	0	0	0	0	0	0	0				

a)	How many millimetres squared are there in a decimetre squared?	
b)	How many metres squared are there in a decametre squared?	
c)	How many decametres squared are there in a kilometre squared?	
d)	How many decimetres squared are there in a hectometre squared?	
e)	How many centimetres squared are there in a decametre squared?	
f)	How many metres squared are there in a hectometre squared?	

6. The sentences below can all be completed by adding the word centiare(s) or hectare(s). Put the right word in the gaps to complete the sentences about **land measurements**.

a)	A square metre is a _____.	e)	100 _____ is an are.
b)	100 _____ = 100 hm ² = 1 km ²	f)	1 are = 100 _____ = 100 m ² = 1 dam ²
c)	100 ares is a _____.	g)	100 _____ is a square km.
d)	1 _____ = 1 m ²	h)	1 _____ = 100 ares = 100 dam ² = 1 hm ²

7. Match each word about **containers** with its correct definition. Write your answers in the grid below.

a)	tank	1	A container with straight sides, a flat base and sometimes a lid.
b)	spoon	2	A metal container with flat sides and a handle, used for carrying petrol.
c)	packet	3	A group of things that have been tied together so that you can carry them easily.
d)	box	4	A verb that means to hold or carry in a vessel (for example, to keep liquid in a bottle).
e)	kettle	5	Something used for storing or holding things (for example, a box or bottle).
f)	jug	6	The things that are contained within something, like the items stored in a box.
g)	jerrycan	7	A small circular container for a drink, usually with a handle.
h)	hold	8	To have something inside, or to contain a quantity of something.
i)	cup	9	A round open container with a handle, used for carrying water or other substances.
j)	contents	10	A container from which you pour liquids such as water or milk.
k)	container	11	A container used for boiling water that has a lid, a handle and a spout.
l)	contain	12	A verb that means to take up space in an area.
m)	bundle	13	An object used for mixing, preparing and eating food.
n)	bucket	14	A large metal container for holding a lot of liquid or gas.
o)	occupy	15	A small parcel or container used to hold small amounts of things like seeds, salt or sugar.

Write your answers here:

a)	b)	c)	d)	e)	f)	g)	h)	i)	j)	k)	l)	m)	n)	o)

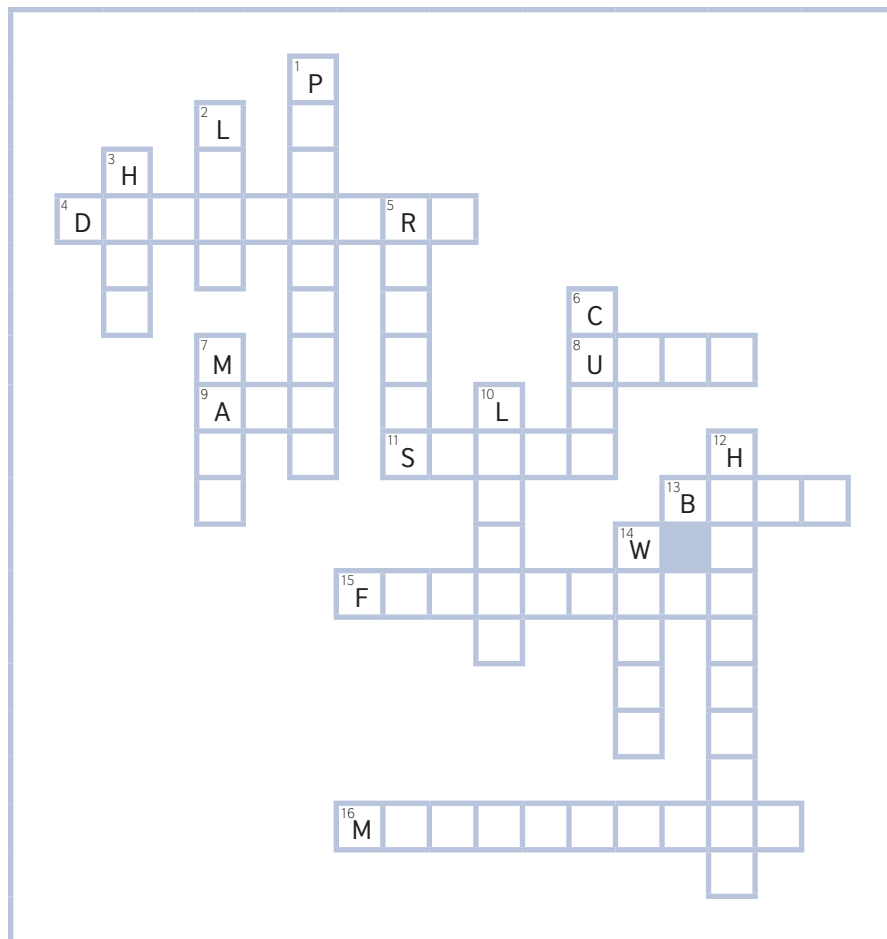
8. Complete the crossword by answering the following questions. All the correct answers are words used in **measurement**.

Across

4. A unit for measuring an amount of liquid or gas in the metric system equal to 10 litres.
8. A standard quantity used for measuring something.
9. A unit for measuring area in the metric system equal to 100 square metres.
11. A unit of volume in the original metric system equal to one cubic metre.
13. A long thick piece of wood, metal or concrete that supports a roof.
15. A mark made by a human or animal foot, especially in a soft surface such as earth, snow, or sand.
16. A unit for measuring an amount of liquid in the metric system. There are 1000 of these in a litre.

Down

1. The outer edge of an enclosed area of ground such as a field.
2. Something that a person or animal carries, especially a large amount of things.
3. A large pile of something, especially an untidy pile.
5. The distance measured by a straight line from the centre of a circle to its edge.
6. An object like a box with six square sides that are all the same size.
7. A large quantity or number.
10. A measurement of how long something is in size.
12. A unit for measuring volume in the metric system. There are a hundred litres in one of these.
14. The distance from one side of something to the other.



9. Find the **adjectives and adverbs** to do with **measurement** in the word search.

<p>M S R C L D E S P E T A N K I E</p> <p>C T T W E P M T O A H E A X Q M</p> <p>Y G N T X A P S E F J J L W D C</p> <p>E P D F L N T E S E E N T I R E</p> <p>H O F D I T Y S T F M N O D I S</p> <p>S A A N G L E E I K U W G E N M</p> <p>N W R L H L L E M Z E R E R P G</p> <p>Y E I G T P G S A P A R T Z S E</p> <p>D D U S M L P R T O I L H H I O</p> <p>A O A O U U B P E R O N E C E U</p> <p>R W C A H R S H D A A D R Q N R</p> <p>U N T R O V O D U T T I Z S H P</p> <p>I W U M G E T J W N G E G I F J</p> <p>K A A C M N X I I P E I R H C R</p> <p>L R L M S A G L S R O T A C T R</p> <p>R D C H B M P B A R L S Z V F N</p>	<p>actual</p> <p>altogether</p> <p>apart</p> <p>downward</p> <p>empty</p> <p>entire</p> <p>estimated</p> <p>far</p> <p>further</p> <p>greater</p> <p>incomplete</p> <p>less</p> <p>light</p> <p>roughly</p> <p>straight</p> <p>wide</p>
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10. Fill the gaps in the sentences with words on **measurement**.

<p>firewood</p> <p>fit</p> <p>grid</p> <p>interval</p> <p>capacity</p> <p>clockwise</p> <p>conversion</p> <p>cover</p> <p>curve</p> <p>symbol</p>	a)	The _____ is the amount of something that can be put in a container or place.
	b)	Moving _____ is going in a circle starting by travelling to the right at the top.
	c)	The process of changing from one system, method, or use to another is called _____.
	d)	A _____ is a shape to represent something in mathematics.
	e)	To _____ is to be all over a surface or object, or to travel a particular distance.
	f)	A _____ is a shape or a line with a gradual smooth bend.
	g)	_____ is wood that can be burned as fuel.
	h)	If something can _____ somewhere, it is small enough or the right size and shape to go there.
	i)	A pattern of straight lines that cross each other to form squares is called a _____.
	j)	An _____ is a period of time between two events.

Glossary

actual	/ˈæktʃuəl/ adj used for emphasizing what is really true or exact compared with a general idea.
altogether	/ˌɔːltəˈgeðə(r)/ adv completely, fully.
apart	/əˈpɑː(r)t/ adv if two people or things are apart, there is a space between them.
are	/ɑː(r)/ noun [C] a unit for measuring area in the metric system. One are is equal to 100 square metres. 1a = 100m ²
bathroom scales	/ˈbɑːθˌruːm skeɪlz/ plural a piece of equipment used for weighing people or things which normally is kept in a room containing a bath or shower, a washbasin, and often a toilet.
beam	/biːm/ noun [C] a long thick piece of wood, metal or concrete that supports a roof.
box	/bɒks/ noun [C] a container with straight sides, a flat base, and sometimes a lid.
bucket	/ˈbʌkɪt/ noun [C] a round open container with a handle, used for carrying water or other substances.
bundle	/ˈbʌnd(ə)/ noun [C] a group of things that have been tied together so that you can carry them easily.
by how much	/maɪtʃ/ phrase used for asking the amount or number of something.
capacity	/kəˈpæsəti/ noun [C/U] the amount of something that can be put in a container or place.
centiare	/ˈsentɪˌɑː(r)/ noun [C] a metric unit for measuring area. A centiare equals a square metre. ca = 1m ²
centigram	/ˈsentɪˌgræm/ noun [C] a metric unit of mass equal to one hundredth of a gram.
clockwise	/ˈklɒkˌwaɪz/ adj adv moving in a circle in the same direction as the hands on a clock.
contain	/kənˈteɪn/ verb [T] a box or envelope etc that contains something has something inside it.
container	/kənˈteɪnə(r)/ noun [C] something used for storing or holding things, for example a box or bottle.
contents	/ˈkɒntents/ noun [U] plural the things that are contained within something, like the contents of a box.
conversion	/kənˈvɜː(r)ʃ(ə)n/ noun [C/U] the process of changing from one system, method, or use to another.
correct sign	/kəˈrekt saɪn/ noun [C] using the right or appropriate symbol '+' or '-' before a number in maths.
correct symbol	/kəˈrekt ˈsɪmb(ə)/ noun [C] using the right shape to represent something in maths, e.g., g for gram.
cover	/ˈkʌvə(r)/ verb [T] to be all over a surface or object, to travel a particular distance.
cube	/kjuːb/ noun [C] an object like a box with six square sides that are all the same size.

cup	/kʌp/ noun [C] a small round container for a drink, usually with a handle.
curve	/kɜ:(r) v/ noun [C] a shape or a line with a gradual smooth bend.
decagram	/ˈdekəˌgræm/ noun [C] a unit for measuring weight in the metric system, 1 dag = 10 grams.
decalitre	/ˈdekəˌli:tə(r)/ noun [C] a unit for measuring an amount of liquid or gas in the metric system. There are 10 litres in a decalitre (10l = 1 dal).
decametre	/ˈdekəˌmi:tə(r)/ noun [C] a unit for measuring area in the metric system, 10m = 1 dam.
decastere	/ˈdekəˌstiə(r)/ noun [C] a unit for measuring capacity in the metric system, 10 steres = 1 dast.
decigram	/ˈdesiˌgræm/ noun [C] a metric unit of mass equal to one tenth of a gram.
decimetre	/ˈdesiˌmi:tə(r)/ noun [C] a metric unit of mass equal to one hundredth of a metre.
destere	/deˈstiə(r)/ noun [C] a unit for measuring capacity in the metric system, 10 dst = 1m3.
difference	/ˈdɪfrəns/ noun [C/U] something that makes one thing not the same as another thing.
distance	/ˈdɪstəns/ noun [C/U] the amount of space between two people or things.
downward	/ˈdaʊnwə(r)d/ adj going towards a lower place or level.
empty	/ˈempti/ adj containing nothing.
entire	/ɪnˈtaɪə(r)/ adj only before noun used for emphasizing that you mean all or every part of something.
estimated	/ˈestɪmeɪtɪd/ adj what you think an amount or value will be, either by guessing or by using available information to calculate it.
far	/fɑ:(r)/ adj adv a long distance.
firewood	/ˈfaɪə(r) , wɒd/ noun [U] wood used as fuel for a fire.
fit	/fɪt/ verb [I/T] if someone or something fits somewhere, they are small enough or the right size and shape to go there.
footprint	/ˈfʊtˌprɪnt/ noun [C] a mark made by a human or animal foot, especially in a soft surface such as earth, snow, or sand.
further	/ˈfɜ:(r)ðə(r)/ adj adv going a longer distance, at a greater distance away from a place, or a greater distance in a particular direction.
greater than	/greɪtə(r) ðən/ adj comparative form of great, bigger or more than is usual.
grid	/grɪd/ noun [C] a pattern of straight lines that cross each other to form squares.
gross	/grəʊs/ adj the total mass, the whole of it.
guess	/ges/ verb [I/T] to say or decide what you think is true, without being certain about it.

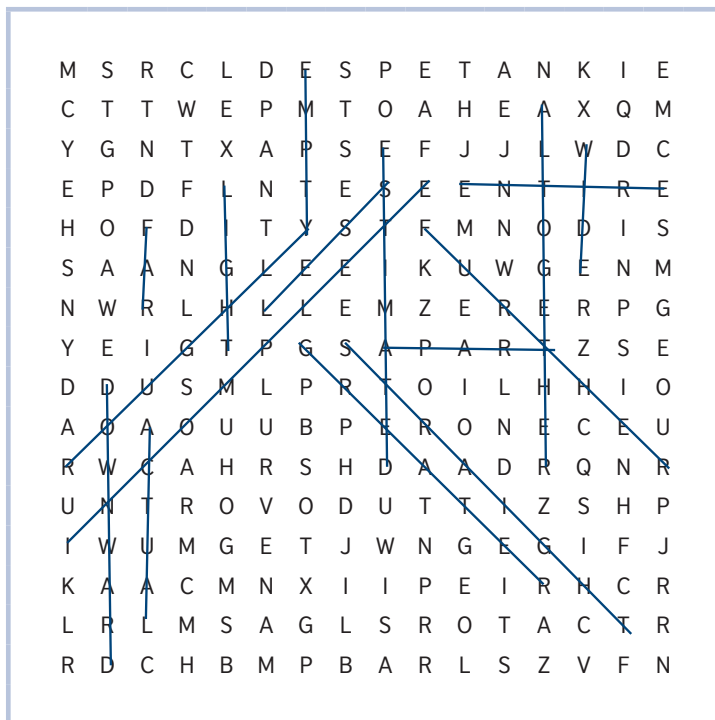
heap	/hi:p/ noun [C] a large pile of something, especially an untidy pile.
heavy	/ˈhevi/ adj a heavy object weighs a lot.
hectare	/ˈhekteə(r)/ noun [C] a unit for measuring an area of land, equal to 10,000 square metres. ha = 1hm ²
hectogram	/ˈhektəʊˈgræm/ noun [C] a unit for measuring mass in the metric system. 1hg = 100g
hectolitre	/ˈhektəʊˈli:tə(r)/ noun [C] a unit for measuring volume in the metric system. 1hl = 100l
hectometre	/ˈhektəʊˈmi:tə(r)/ noun [C] a unit for measuring length in the metric system. 1hm = 100m
hold	/həʊld/ verb [T] to have something (a quantity of something) inside.
incomplete	/ˌɪnkəmˈpli:t/ adj lacking one or more parts, not finished or completely developed.
instrument	/ˈɪnstɹəmənt/ noun [C] a tool or piece of equipment used in science, medicine, or technology, someone or something that can be used in order to make something happen.
interval	/ˈɪntə(r)v(ə)l/ noun [C] a period of time between two events.
jerrycan	/ˈdʒeriˌkæn/ noun [C] a metal container with flat sides and a handle, used for carrying petrol.
jug	/dʒʌg/ noun [C] a container from which you pour liquids such as water or milk.
kettle	/ˈket(ə)l/ noun [C] a container that is used for boiling water. It has a lid, a handle, and a spout.
land measurement	/lənd ˈmeʒə(r)mənt/ noun [U] the exact size and shape of an area of ground, especially one that is used for a particular purpose such as farming or building.
length	/lenθ/ noun [C/U] a measurement of how long something is in size.
less than	/les/ adv, determiner, prep, pronoun comparative form of little, used for referring to an amount that is smaller than another amount, smaller than before, or smaller than you expected.
light	/laɪt/ adj not weighing much, or weighing less than you expect.
load	/ləʊd/ noun [C] something that a person or animal carries, especially a large amount of things.
mass	/mæs/ noun [C] a large quantity or number.
measuring stick	/ˌmeʒə(r)ɪŋ stɪk/ noun [C] a thin piece of wood that has been broken or cut from a tree, used for understanding how long or big something is.
milligram	/ˈmɪlɪˌgræm/ noun [C] a unit for measuring weight in the metric system. 1000mg = 1 gram.
millilitre	/ˈmɪlɪˌli:tə(r)/ noun [C] a unit for measuring an amount of liquid in the metric system. 1000ml = 1 litre.
net	/net/ adj the net weight of something is its weight without its container.

object	/ˈɒbdʒekt/ noun [C] a thing that you can see and touch that is not alive and is usually solid.
occupy	/ˈɒkjʊpaɪ/ verb [T] if something occupies an area of land or other place during a period of time, they take up space in that area.
packet	/ˈpækɪt/ noun [C] a small parcel or envelope containing a set of similar things.
pan scale	/ˈpæn skeɪl/ noun [C] a piece of equipment used for weighing things, consisting of a pan or a dish in which the things to be weighed are placed.
perimetre	/pəˈrɪmɪtə(r)/ noun [C] the outer edge of an enclosed area of ground such as a field.
piece of string	/ˈstrɪŋ/ noun [C/U] thin rope, usually made of twisted fibres and used for tying things together.
produce	/prəˈdjuːs/ verb [T] to make or grow something, especially in large quantities and in order to be sold.
quantity	/ˈkwɒntəti/ noun [U] the amount of something.
quintal	/ˈkwɪntəl/ noun [C] a unit of mass in the metric system for measuring weight, 1q = 100 kilograms.
radius	/ˈreɪdiəs/ noun [C] the distance from the centre of a circle to its edge, or a straight line from the centre to the edge.
real (size)	/rɪəl/ adj true size and not just according to what someone claims.
rectangle	/ˈrek.tæŋɡ(ə)l/ noun [C] a shape with four straight sides and four angles of 90°.
rectangular	/rekˈtæŋɡjʊlə(r)/ adj with the shape of a rectangle.
roughly	/ˈrʌfli/ adv used for showing that an amount, number, time etc is not exact.
ruler	/ˈruːlə(r)/ noun [C] an object used for measuring or for drawing straight lines, consisting of a long flat piece of plastic, wood, or metal marked with units of measurement.
scale	/skeɪl/ noun [U] singular the size of something, especially when it is big.
shape	/ʃeɪp/ noun [C/U] the outer form of something.
short	/ʃɔː(r)t/ adj (shorter, shortest) measuring a small height or length. Opposite: tall (taller, tallest)
shoulder height	/ˈʃəʊldə(r) haɪt/ noun [U] the degree to which something is high or someone is tall, up to the shoulder.
spoon	/spuːn/ noun [C] an object used for eating liquid foods and for mixing and preparing food.
spring balance	/sprɪŋ ˈbæləns/ noun [C] a piece of equipment used for weighing things, consisting of a spring which stretches according to the weight of what is being weighed.
stere	/stiə(r)/ noun [C] a unit of volume in the original metric system equal to one cubic metre. 1st = 1m ³ .
straight	/streɪt/ adj without a bend or curve.
surface	/ˈsɜː(r)fɪs/ noun [C] the top layer or outside part of something.

surrounded	/sə'reʊndɪd/ verb [T] to be encircled all around or on all sides.
tank	/tæŋk/ noun [C] a large metal container for liquid or gas: <i>water tank</i> .
tape	/teɪp/ noun [C] a long thin plastic band on which you can record sounds, pictures, or information.
tare	/teə(r)/ noun [C] the weight of an empty truck or large container, used for calculating the weight of the goods that it carries.
tonne	/tʌn/ noun [C] a unit for measuring weight, equal to 1,000kg. A tonne is also called a metric ton.
top	/tɒp/ noun [C] the lid or cover of an object or for a container.
uniform	/ˈjuːnɪfɔː(r) m/ adj the same everywhere.
unit	/ˈjuːnɪt/ noun [C] a standard quantity used for measuring something.
value	/ˈvæljuː/ noun [C/U] the amount that something is worth, measured especially in money.
volume	/ˈvɒljuːm/ noun [C/U] an amount of something.
weigh	/wei/ verb [linking verb] to have a particular weight.
weight balance	/weɪt ˈbæləns/ noun [C] a piece of equipment used for weighing things, consisting of a bar and two plates on which weights are placed.
wide	/waɪd/ adj measuring a large distance from one side to the other.
width	/wɪdθ/ noun [C/U] the distance from one side of something to the other.

Key:

1. a) net, b) object, c) string, d) produce, e) quantity, f) rectangle, g) ruler, h) shape
2. a) tallest, b) shortest, c) shoulder, d) taller, e) difference, f) shorter
3. a) F (There are one hundred grams in a hectogram), b) T, c) T, d) F (There are one thousand milli-grams in a gram), e) T, f) T, g) F (There are ten hectograms in one kilogram)
4. a) bathroom scales, b) spring balance, c) pan scale, d) weight balance
5. a) 10000, b) 100, c) 100, d) 100000000, e) 1000000, f) 10000
6. a) centiare, b) hectares, c) hectare, d) centiare, e) centiares, f) centiares, g) hectares, h) hectare,
7. a) 14, b) 13, c) 15, d) 1, e) 11, f) 10, g) 2, h) 8, i) 7, j) 6, k) 5, l) 4, m) 3, n) 9, o) 12
8. **Across:** 4) decalitre, 7) unit, 9) are, 11) stère, 13) beam, 15) footprint, 16) millilitre
Down: 1) perimeter, 2) load, 3) heap, 5) radius, 6) cube, 8) mass, 10) length, 12) hectolitre, 14) width
- 9.



10. a) capacity, b) clockwise, c) conversion, d) symbol, e) cover, f) curve, g) Firewood, h) fit, i) grid, j) interval