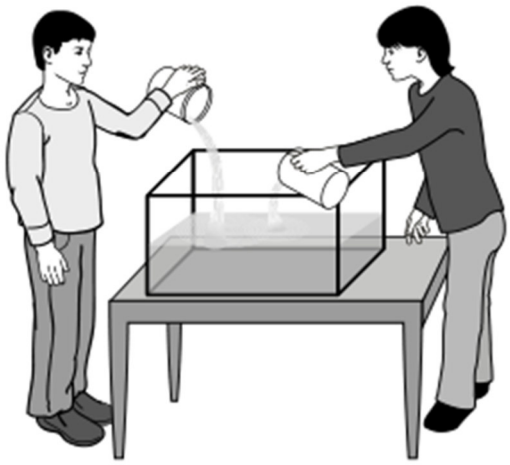
TIMSS 2019 – Restricted Use Items – Numbers

Benchmark 3

Applying

There were 12 liters of water in the tank.

Ravi then poured 3 liters of water into the tank and Indira poured another 3 liters of water into the tank.



How can the amount of water in the tank be calculated?

Ⓐ $12 + (2 + 3)$

Ⓑ $(12 + 3) + (12 + 3)$

Ⓒ $(12 + 2) \times 3$

Ⓓ $12 + (2 \times 3)$

Benchmark 3

Applying

Anna is cycling to her grandmother's house. She has cycled $\frac{3}{8}$ of the way.

What fraction of the distance does Anna have left to cycle?

Answer: _____

Benchmark 4

Reasoning

A teacher wants to put 30 students in groups so that

- each group has the same number of students, **and**
- each group has an odd number of students.

Show two different ways the teacher could make the groups.

Way 1

Number of groups: _____

Number of students in each group: _____

Way 2

Number of groups: _____

Number of students in each group: _____

Applying

Maria traveled by bicycle for 4 days. She traveled the same distance each day.

In total she traveled 76 kilometers.

How many kilometers did Maria travel each day?

Ⓐ 18

Ⓑ 19

Ⓒ 20

Ⓓ 24

Reasoning

Caroline bought:

cost 22 zeds

Ruthanne bought:

cost 13 zeds

How much do a  and a  cost together?

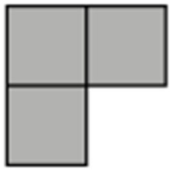
Answer: _____ zeds

How much does a  cost?

Answer: _____ zeds

Reasoning

A chocolate bar is in the shape of a rectangle. One-fourth of it is shown below.



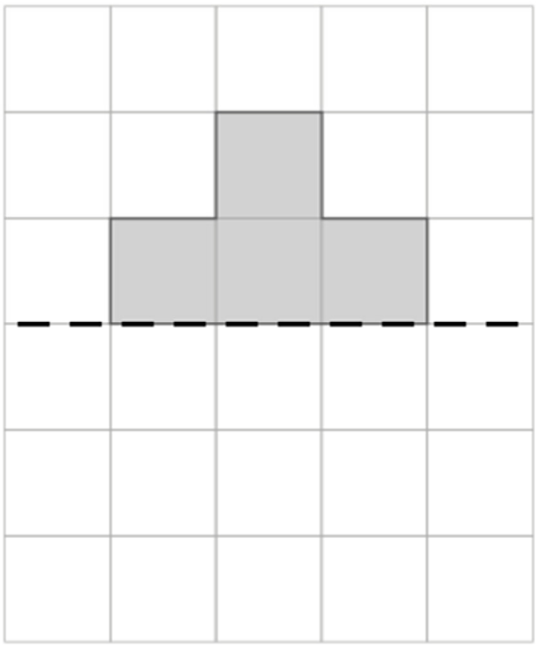
Draw the complete chocolate bar on the grid.

TIMSS 2019 – Restricted Use Items – Measurement and Geometry

Benchmark 2

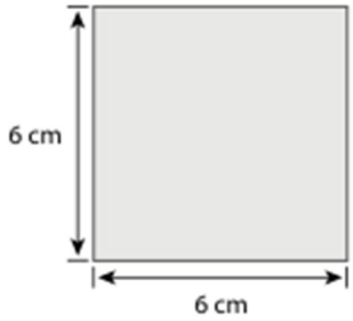
Applying

Complete this figure so the dashed line is a line of symmetry.



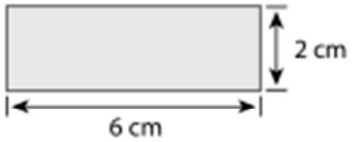
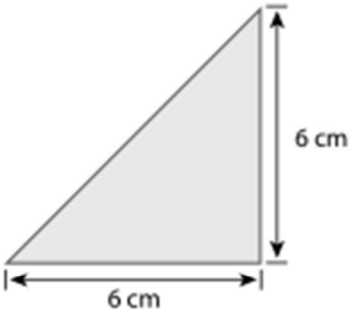
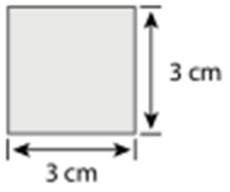
Benchmark 4

Applying



The square above can be made by putting together smaller shapes.

Complete the table with the number of each shape that are needed to cover the whole square.

Shape	Number Needed to Cover the Square Above
	
	
	

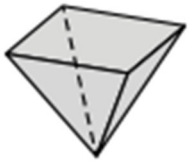
Benchmark 4

Applying

Justin has many of these triangle and square panels that fit together to make three-dimensional shapes.

Justin makes each of the shapes shown below.

Fill in the table. The first one has been done for you.

Three-dimensional shape	Number of triangles	Number of squares
	4	1
		
		
		

Knowing

What are the units for these measurements?

Draw a line to match each measurement to its units.

A car weighs 1400

A bucket holds 10

A pencil weighs 5

grams (g)

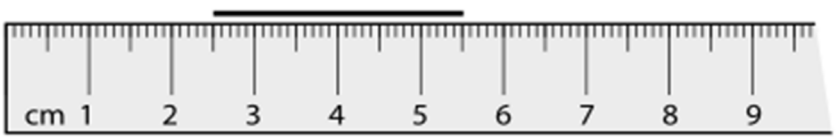
kilograms (kg)

liters (L)

milliliters (mL)

Knowing

How long is this line in centimeters?



Ⓐ 7

Ⓑ 5,5

Ⓒ 3,5

Ⓓ 3

TIMSS 2019 – Restricted Use Items – Data

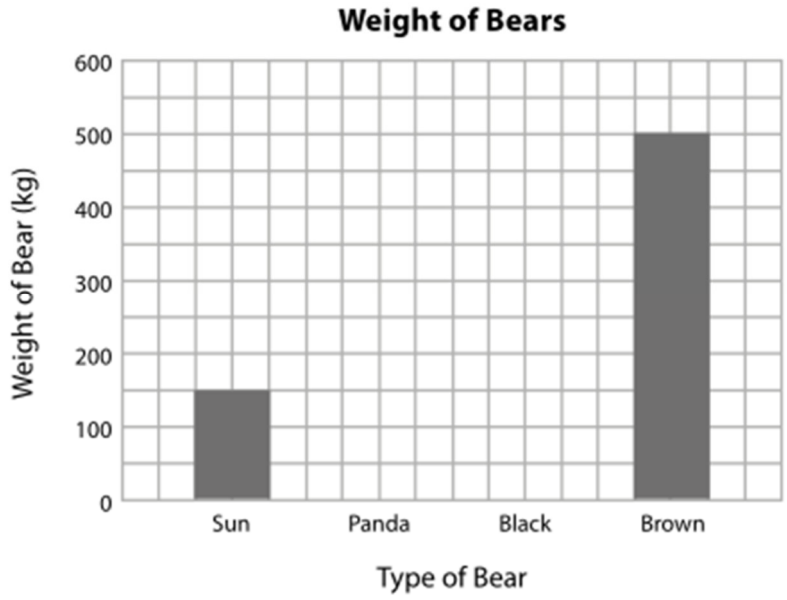
Benchmark 1

Applying

The table shows the weights of 4 bears.

Type of Bear	Weight (kg)
Sun	150
Panda	200
Black	250
Brown	500

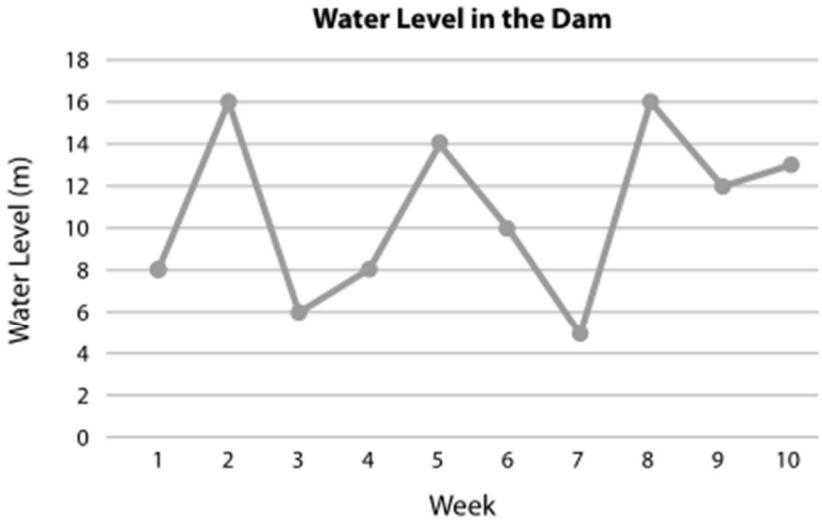
Use the data to complete the graph.



Benchmark 2

Knowing

The graph shows the water level in a dam for 10 weeks.



A. What was the water level for week 8?

Answer: _____ m

Benchmark 3

Reasoning

Animal Weights

Animal	Weight (kg)
Cheetah	50
Lion	100
Leopard	75

Complete the pictograph of the weight of each animal.

The cheetah has been done for you.

Animal	Weight (kg)
Cheetah	
Lion	
Leopard	

Key:  = 50 kg

Benchmark 4

Applying

Skylar recorded the number of cars that traveled along her street each morning.

Day	Number of Cars
Monday	8
Tuesday	5
Wednesday	7
Thursday	10
Friday	12

She started making a graph of her data.

What numbers should Skylar use to label the horizontal lines on her graph?

Put the numbers in the boxes on Skylar's graph.