CALCULATOR AVAILABLE Questions

Question 1

The following formula is used to calculate simple interest:

$$I = \frac{PRT}{100}$$

where:

I is the simple interest paid or earned in dollars

P is the principal amount borrowed or invested

R is the annual rate of interest as a percentage (e.g. for 5%, R = 5)

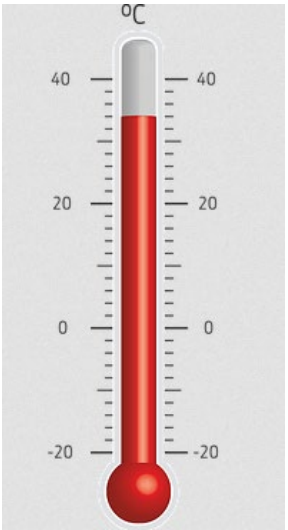
T is the time period in years

Lisa wants to invest some money for her daughter's future educational expenses. Use this formula to calculate the simple interest Lisa will earn if she invests $5000 at a 3% annual interest rate for 5 years.

$_____

Question 2

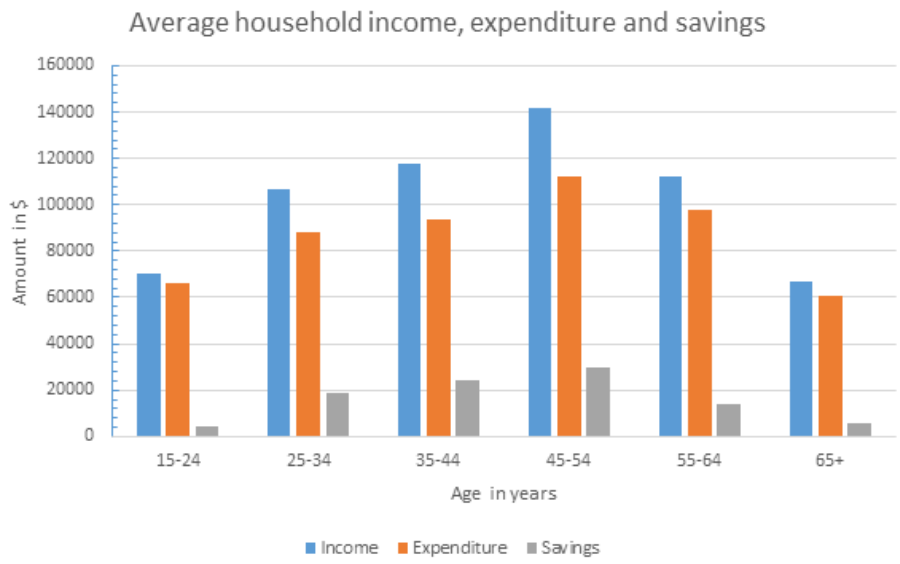
A group of children are using thermometers to measure and record the temperature in different locations at their school. The thermometer at one of the locations reads the following:



What temperature should the students record for the given location?

_____°C

Question 3



The graph above shows average annual household income, expenditure, and savings for different age groups. Use it to answer true or false to the following:

a) Household expenditure is less for the 55-64 age group than for the 35-44 age group.

☐ True

☐ False

b) The proportion of income as expenditure is greatest for the 15-24 age group.

☐ True

☐ False

c) The age group with the lowest income, expenditure, and savings is the 65+ age group.

☐ True

☐ False

Question 4

Service	**Size**	**Cost**
Black and white photocopying	A4	11c per side
Colour photocopying	A4	30c per side
Laminating	A4	$1.20 per sheet
	A3	$2.20 per sheet

The table above shows photocopying and laminating costs.

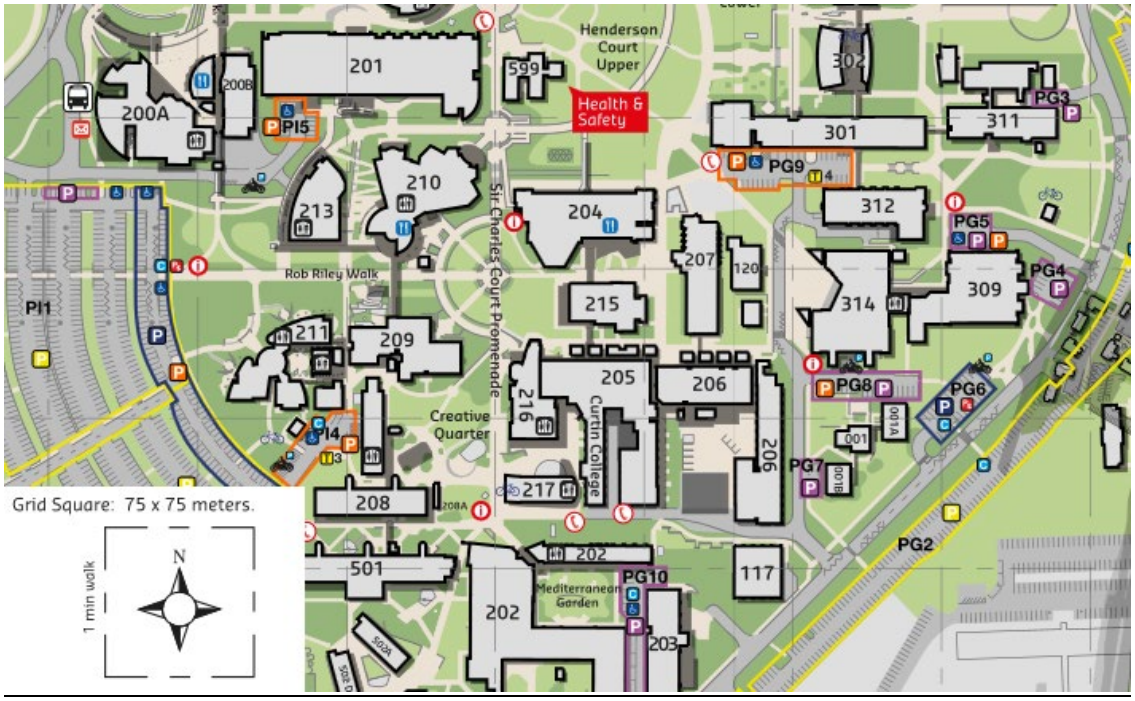
Sarah wishes to:

- Photocopy 10 single-sided black and white pages
- Photocopy five single-sided colour pages
- Laminate two A4 pages

The total cost for this is:

$_____

Question 5



The map above shows part of the Curtin Bentley campus. Use it to answer true or false to the following:

a) Building 204 is to the north of building 202.

☐ True

☐ False

b) When walking from building 211 to building 309, following the Rob Riley Walk and going past building 204, Creative Quarter is on the left.

☐ True

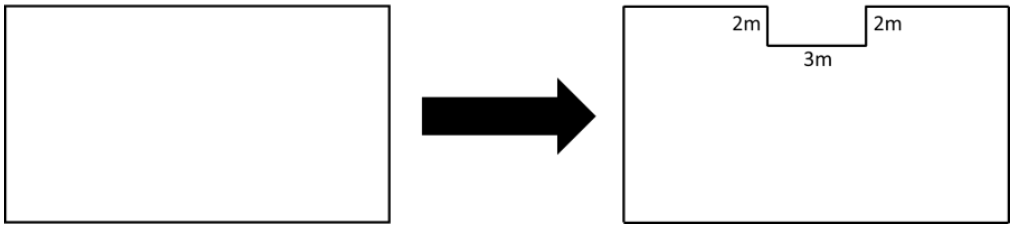
☐ False

c) Building 215 is approximately 100m long.

☐ True

☐ False

Question 6



A large garden bed with a perimeter of 50m has a section removed, as shown above. What is the perimeter of the new garden bed?

_____m

Question 7

A school excursion is scheduled for Thursday, but it will be cancelled if it is raining. The Bureau of Meteorology predicts a 40% chance of rain; what is the probability that the excursion will NOT be cancelled?

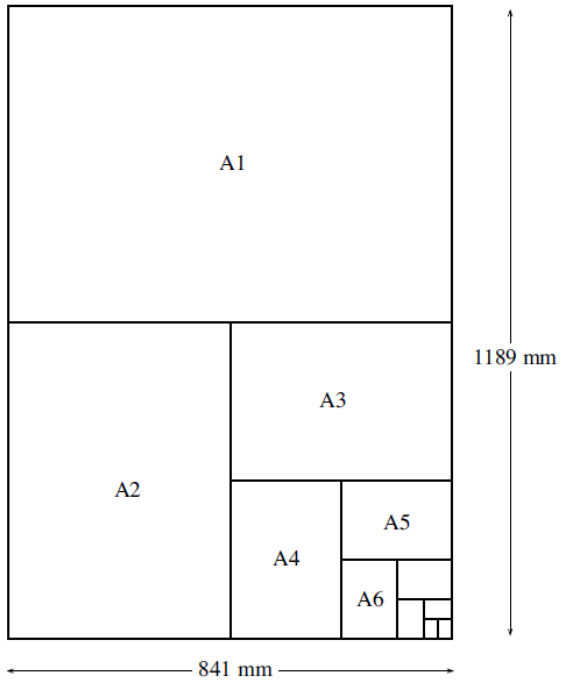
☐ $\frac{3}{5}$

☐ $\frac{4}{10}$

☐ $\frac{2}{5}$

☐ $\frac{1}{4}$

Question 8



An A0 sheet of paper

The diagram above shows an A0 sheet of paper, which measures 1189mm x 841mm; almost exactly 1 square meter in area. Furthermore, as shown, an A1 sheet is half the area of a A0 sheet, an A2 sheet is half the area of an A1 sheet, and so on. What, then, is the area in square centimetres of an A3 sheet of paper?

☐ 0.125m^2

☐ 12.5cm^2

☐ 1250cm^2

☐ 2500cm^2

Question 9

A school disco is to be held for 90 students, with catering provided. At a previous disco for 56 students the catering included 224 pieces of sushi.

How many pieces of sushi should be ordered for the upcoming disco to ensure the same allocation of pieces per student?

_____pieces

Question 10

Lucy and John are playing a game with two dice, and Lucy needs to roll an 11 to win. What is the probability that the top numbers on the two dice sum to 11 on her next turn (as a fraction in simplest form)?

☐ $\frac{1}{18}$

☐ $\frac{1}{6}$

☐ $\frac{1}{4}$

☐ $\frac{1}{36}$

Question 11

A machine in a supermarket is set to cut slices 2.6mm thick from a piece of salami that is 33.8cm long. How many slices can be cut?

☐ 13

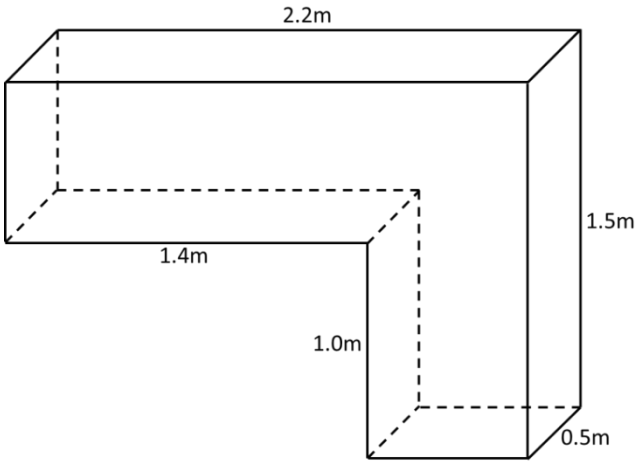
☐ 1300

☐ 130

☐ 77

Question 12

Chris is considering buying a large custom made fish tank with the following dimensions:



What is the volume of the fish tank in cubic metres, to two decimal places?

_____m^3

Question 13

A school purchases 30 large bottles of paint online, and pays $12 for delivery. If the total cost of the order is $522, what was the price per bottle of paint?

$_____

Question 14

Mike's resting heart rate is 70 bpm, but during exercise it increases by 30%. What is Mike's heart rate during exercise?

_____bpm

Question 15

A raffle contains tickets numbered from 1 to 30, of which one is drawn at random. What is the probability that the number of the ticket drawn is NOT a multiple of 4 or 5 (as a fraction in simplest form)?

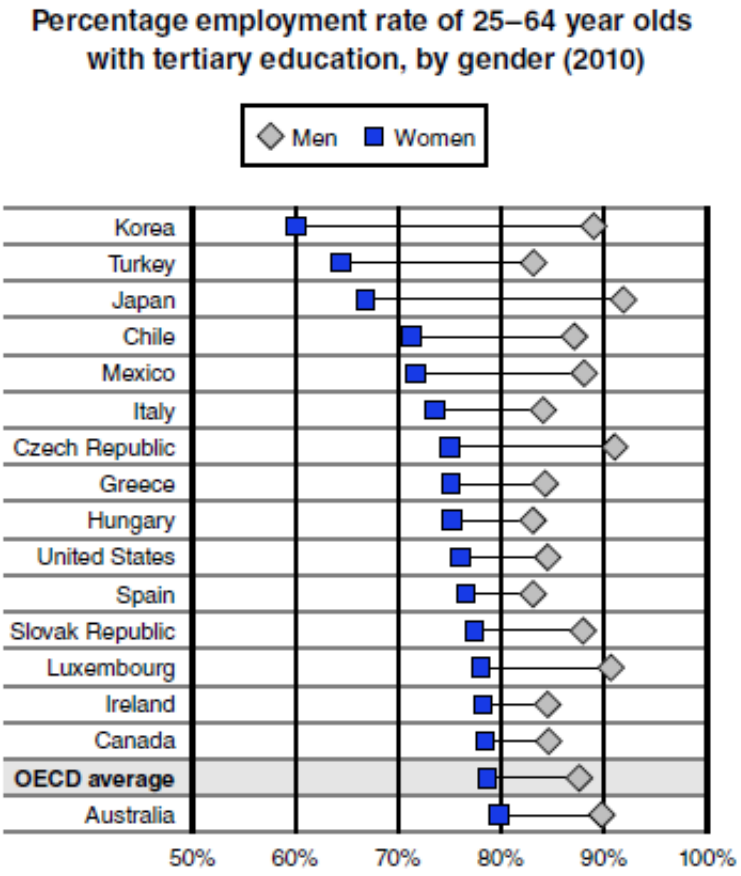
☐ $\frac{12}{30}$

☐ $\frac{3}{5}$

☐ $\frac{2}{5}$

☐ $\frac{9}{15}$

Question 16



Source: *Education at a Glance* 2012, OECD indicators

The graph above is adapted from the OECD report 'Education at a Glance', 2012. True or false; Chile has a lower rate of employment than Italy for both men and women with tertiary educations?

☐ True

☐ False

Question 17

The highest mark in a class for a test was 57 out of 60, and the lowest mark was 24 out of 60. What is the difference between the highest and the lowest marks as a percentage of the total available marks?

_____%

Question 18

A student advisor is creating a timetable for consulting with students. She plans to see each student for 20 minutes, and to see students in 2 hour blocks of consecutive consultations. If the advisor needs to see 45 students, what is the minimum number of 2 hour sessions she will need to schedule?

_____sessions

Question 19

	Car	Public transport	Bike	Walking	TOTAL
Male	42	61	12	5	120
Female	43	32	5	0	80
TOTAL	**85**	**93**	**17**	**5**	**200**

The two way table above displays the results of a survey regarding mode of transport to work. The survey was administered to 200 people.

a) True or false; 6.25% of people who ride their bike to work are female?

☐ True

☐ False

b) True or false; the percentage of males who take public transport to work is less than the percentage of females who take their car to work?

☐ True

☐ False

Question 20

Jenny is redecorating her bedroom and wants to cover one of the walls with wallpaper. She measures the wall and finds it is 3m wide and 2.8m high. If the wallpaper she likes costs $25 per square metre, how much will the wallpaper cost in total?

$_____

Question 21

The Roman Empire period of ancient Rome lasted from 27 BC to 476 AD (inclusive of both years). Given that the year 1 AD follows the year 1 BC, for how many years did the Roman Empire last?

_____years

Question 22

At Mary and Robert's wedding, 42 of the guests were Mary's family. If this accounted for 30% of the total guests, how many guests were there altogether?

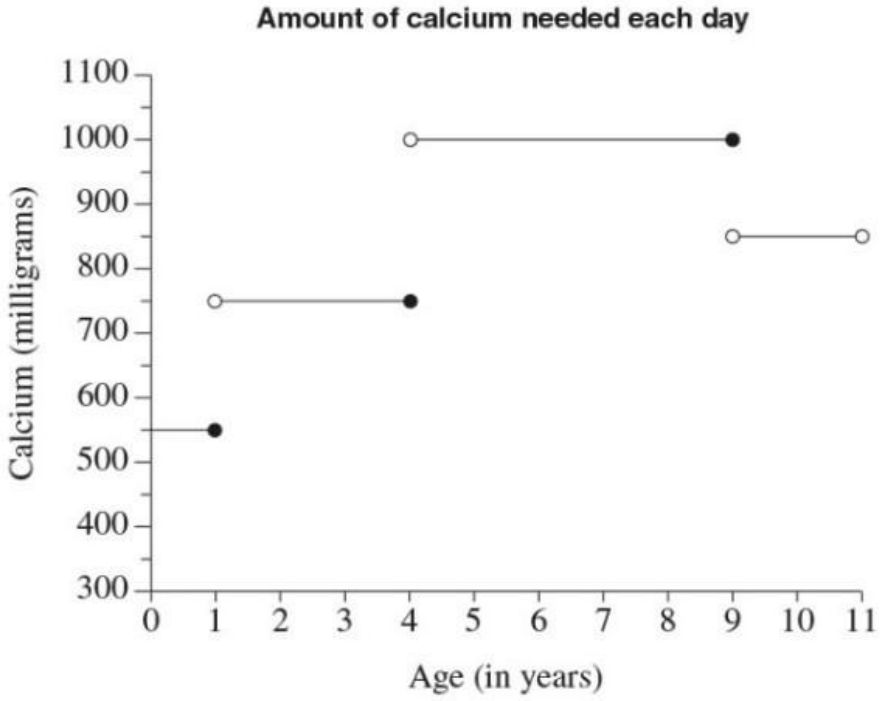
☐ 126

☐ 1260

☐ 72

☐ 140

Question 23



The graph above shows how much calcium children need each day. If Hannah is 3 years old and Luke is 10 months old, how much less calcium does Luke need each day compared to Hannah?

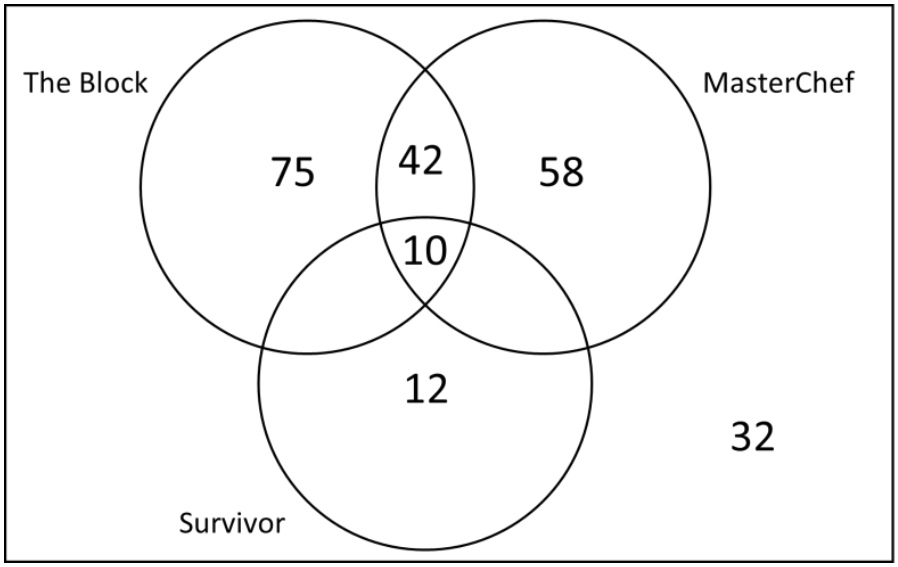
☐ 400mg

☐ 100mg

☐ 300mg

☐ 200mg

Question 24



The Venn diagram above displays the results of a survey completed by 330 people in regards to the reality TV shows they watch. Given that 160 participants stated that they watch The Block, what are the number of participants who watch Masterchef and Survivor, but not The Block?

_____participants

Question 25

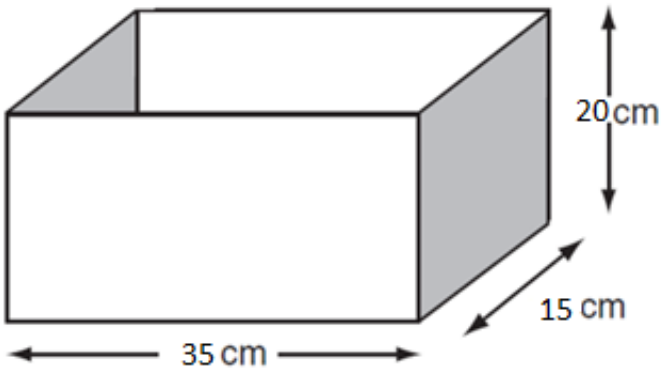
Jessica has a large number of assignments to mark, and plans to mark a portion each day. On Tuesday she awards the following marks:

48, 33, 45, 36, 29, 44, 38, 31

What is the average mark for these assignments?

_____

Question 26



Luke has a container with dimensions shown above. Given that a cube with dimensions 10cm x 10cm x 10cm holds 1L of liquid, how much liquid would Luke's container hold?

_____L

End of Calculator Available Questions.

Calculator Not Available Questions start on next page.

CALCULATOR NOT AVAILABLE Questions

Question 27

54 000 people attended a football match. Of these, only 25% were supporters of the visiting team. How many people were supporters of the visiting team?

_____

Question 28

Of the 2 500 000 Western Australians surveyed in the 2016 Census, approximately 8% indicated that their country of birth was England. How many Western Australians were born in England?

☐ 20 000

☐ 225 000

☐ 300 000

☐ 200 000

Question 29

Lane	2	3	4	5	6	7	8	9
Name	Bromelli	Simbine	Gatlin	Vicaut	Bolt	De Grasse	Meite	Blake
Time	10.06	9.94	9.89	10.04	9.81	9.91	9.96	9.93

The table above shows the results of a men's 100m final at the Olympics. True or false; the runner who finished 4th was in lane 9 (Blake)?

☐ True

☐ False

Question 30

Lisa is buying cereal for a fundraising breakfast. If each box of cereal contains 720g and Lisa buys a carton containing 10 boxes, how much cereal will she have in kilograms?

_____kg

Question 31

A deli purchases salad in 3.6kg bags, which they then repackage and sell in 450g tubs. How many tubs can they fill from each bag of salad?

☐ 6

☐ 7

☐ 5

☐ 8

Question 32

A country has a population of 8 300 000, of which 2 500 000 live in rural areas.

Which of the following is the closest approximation to the percentage of the population who don't live in rural areas?

☐ 90%

☐ 60%

☐ 80%

☐ 70%

End of Questions. Answers begin on next page.

CALCULATOR AVAILABLE Answers

Question 1

The following formula is used to calculate simple interest:

$$I = \frac{PRT}{100}$$

where:

I is the simple interest paid or earned in dollars

P is the principal amount borrowed or invested

R is the annual rate of interest as a percentage (e.g. for 5%, R = 5)

T is the time period in years

Lisa wants to invest some money for her daughter's future educational expenses. Use this formula to calculate the simple interest Lisa will earn if she invests $5000 at a 3% annual interest rate for 5 years.

Answer: $750

This answer can be calculated as follows:

$$\boldsymbol{I = \frac{5000 \times 3 \times 5}{100} = \frac{75000}{100} = \$750}$$

Question 2

A group of children are using thermometers to measure and record the temperature in different locations at their school. The thermometer at one of the locations reads the following:

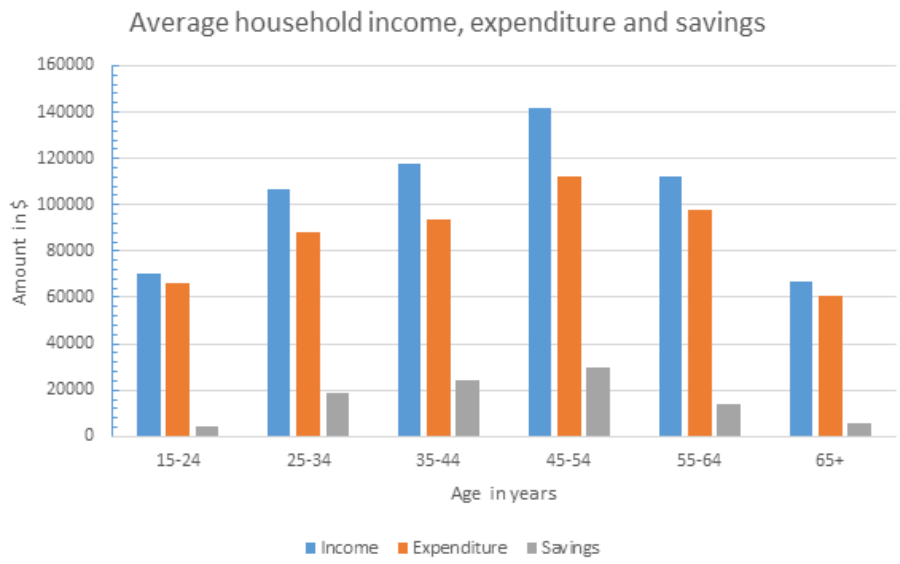
What temperature should the students record for the given location?

Answer: 34°C

This answer can be calculated as follows:

The scale on the thermometer goes up in increments of 2°C. The longer line between 20°C and 40°C indicates 30°C, and the second shorter line above that gives a reading of 34°C.

Question 3



The graph above shows average annual household income, expenditure, and savings for different age groups. Use it to answer true or false to the following:

a) Household expenditure is less for the 55-64 age group than for the 35-44 age group.

b) The proportion of income as expenditure is greatest for the 15-24 age group.

c) The age group with the lowest income, expenditure, and savings is the 65+ age group.

Answer: False, True, False

This answer can be calculated as follows:

Part a) is False as comparing the orange column (representing expenditure) for the 55-64 and 35-44 age groups shows that the column is higher for the 55-64 age group, meaning their expenditure is more.

Part b) is True as almost all income goes towards expenditure for this age group, and this is a higher proportion than any other age group.

Part c) is False as the 65+ age group has more savings than the 15-24 age group.

Question 4

Service	Size	Cost
Black and white photocopying	A4	11c per side
Colour photocopying	A4	30c per side
Laminating	A4	$1.20 per sheet
	A3	$2.20 per sheet

The table above shows photocopying and laminating costs.

Sarah wishes to:

- Photocopy 10 single-sided black and white pages
- Photocopy five single-sided colour pages
- Laminate two A4 pages

The total cost for this is:

Answer: $5

This answer can be calculated as follows:

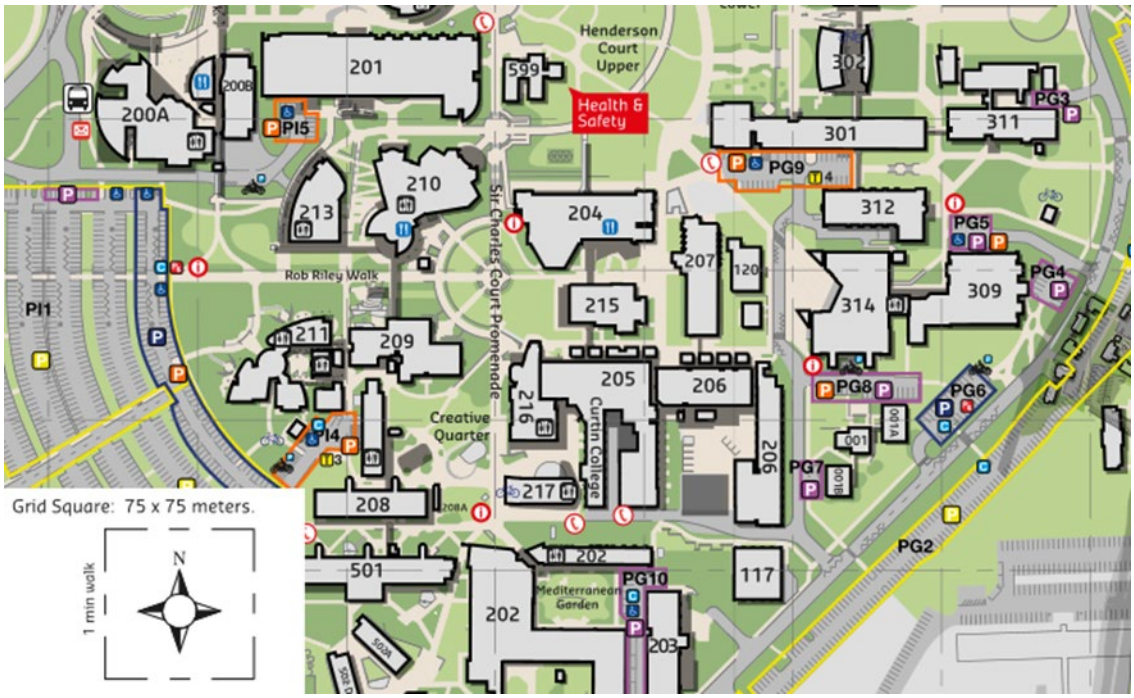
0.11 x 10 = $1.10

0.3 x 5 = $1.50

1.20 x 2 = $2.40

$1.10 + $1.50 + $2.40 = $5

Question 5

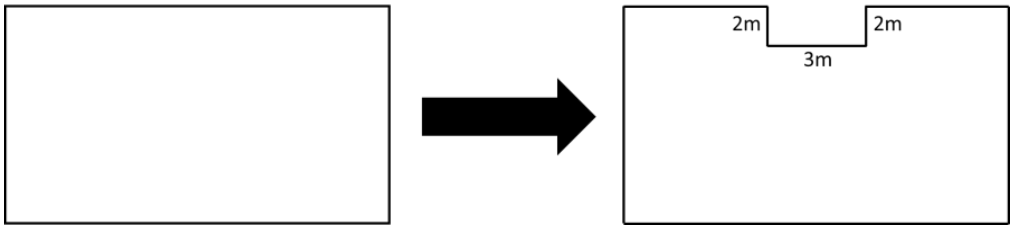


The map above shows part of the Curtin Bentley campus. Use it to answer true or false to the following:

a) Building 204 is to the north of building 202.
b) When walking from building 211 to building 309, following the Rob Riley Walk and going past building 204, Creative Quarter is on the left.
c) Building 215 is approximately 100m long.

Answer: True, False, False
This answer can be calculated as follows:
Part a) is True as building 204 is above Building 202 on the map, and the map compass indicates that north is at the top.
Part b) is False, as building 211 is on the left of the map and building 309 is towards the right. So when walking from building 211 to building 309 following the specified route, the Creative Quarter would be on the right.
Part c) is False, as the length of building 215 is less than the length of a grid square, which represents 75m (as stated in the map key).

Question 6



A large garden bed with a perimeter of 50m has a section removed, as shown above. What is the perimeter of the new garden bed?

Answer: 54m
This answer can be calculated as follows:
50m + 2m + 2m = 54m

Question 7

A school excursion is scheduled for Thursday, but it will be cancelled if it is raining. The Bureau of Meteorology predicts a 40% chance of rain; what is the probability that the excursion will NOT be cancelled?

☐ $\frac{3}{5}$

☐ $\frac{4}{10}$

☐ $\frac{2}{5}$

☐ $\frac{1}{4}$

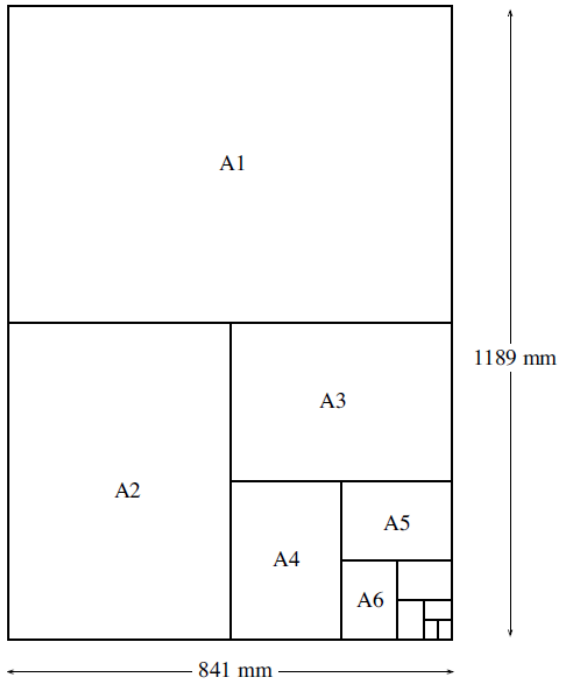
Answer: $\frac{3}{5}$

This answer can be calculated as follows:

40% chance of rain means probability excursion cancelled = $\frac{2}{5}$

Therefore probability excursion not cancelled = 1 - $\frac{2}{5}$ **=** $\frac{3}{5}$

Question 8



An A0 sheet of paper

The diagram above shows an A0 sheet of paper, which measures 1189mm x 841mm; almost exactly 1 square meter in area. Furthermore, as shown, an A1 sheet is half the area of a A0 sheet, an A2

sheet is half the area of an A1 sheet, and so on. What, then, is the area in square centimetres of an A3 sheet of paper?

☐ 0.125m^2

☐ 12.5cm^2

☐ 1250cm^2

☐ 2500cm^2

Answer: 1250cm^2
This answer can be calculated as follows:
Area of A0 sheet = 1 square metre = 100cm x 100cm = 10000cm^2
Area of A1 sheet = half of A0 sheet = 5000cm^2
Area of A2 sheet = half of A1 sheet = 2500cm^2
Area of A3 sheet = half of A2 sheet = 1250cm^2

Question 9

A school disco is to be held for 90 students, with catering provided. At a previous disco for 56 students the catering included 224 pieces of sushi.

How many pieces of sushi should be ordered for the upcoming disco to ensure the same allocation of pieces per student?

Answer: 360 pieces
This answer can be calculated as follows:
224 ÷ 56 = 4
4 x 90 = 360
Therefore 360 pieces are required

Question 10

Lucy and John are playing a game with two dice, and Lucy needs to roll an 11 to win. What is the probability that the top numbers on the two dice sum to 11 on her next turn (as a fraction in simplest form)?

☐ $\frac{1}{18}$

☐ $\frac{1}{6}$

☐ $\frac{1}{4}$

☐ $\frac{1}{36}$

Answer: $\frac{1}{18}$

This answer can be calculated as follows:

Create a sample space in the form of a table:

	1	2	3	4	5	6
1	**1,1**	**1,2**	**1,3**	**1,4**	**1,5**	**1,6**
2	**2,1**	**2,2**	**2,3**	**2,4**	**2,5**	**2,6**
3	**3,1**	**3,2**	**3,3**	**3,4**	**3,5**	**3,6**
4	**4,1**	**4,2**	**4,3**	**4,4**	**4,5**	**4,6**
5	**5,1**	**5,2**	**5,3**	**5,4**	**5,5**	**5,6**
6	**6,1**	**6,2**	**6,3**	**6,4**	**6,5**	**6,6**

From this we can see that there are 2 possible outcomes where the faces sum to 11, out of a total of 36 equally likely outcomes.

So the probability of the faces summing to 11 is $\frac{2}{36}$, which in simplest form is $\frac{1}{18}$

Question 11

A machine in a supermarket is set to cut slices 2.6mm thick from a piece of salami that is 33.8cm long. How many slices can be cut?

☐ 13

☐ 1300

☐ 130

☐ 77

Answer: 130 slices

This answer can be calculated as follows:

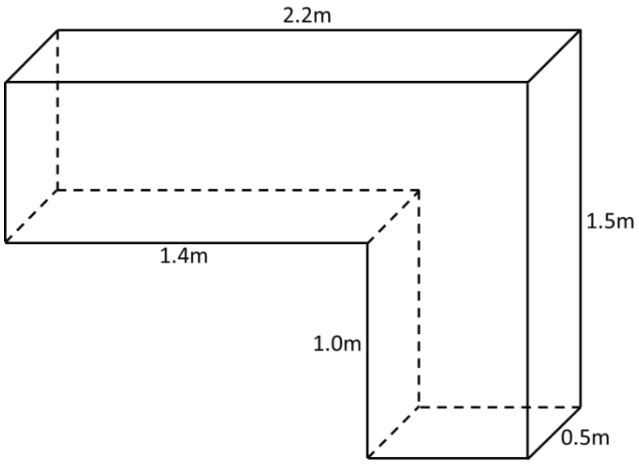
33.8 cm x 10 = 338 mm

338 ÷ 2.6 = 130

Therefore 130 slices can be cut.

Question 12

Chris is considering buying a large custom-made fish tank with the following dimensions:



What is the volume of the fish tank in cubic metres, to two decimal places?

Answer: 0.95m^3
One way this answer can be calculated is by considering the shape as a horizontal rectangular prism with a vertical rectangular prism below it.
Height of horizontal rectangular prism = 1.5 - 1.0 = 0.5
Therefore volume of horizontal rectangular prism = 2.2 x 0.5 x 0.5 = 0.55m^3
Length of vertical rectangular prism = 2.2 - 1.4 = 0.8
Therefore volume of vertical rectangular prism = 0.8 x 1.0 x 0.5 = 0.40m^3
Therefore volume of whole L-shaped tank = 0.55 + 0.40 = 0.95m^3

Another way this answer can be calculated is by considering the shape as a large rectangular prism with a smaller rectangular prism removed from the bottom left corner.
Volume of large rectangular prism = 2.2 x 1.5 x 0.5 = 1.65m^3
Volume of smaller rectangular prism = 1.4 x 1.0 x 0.5 = 0.70m^3
Therefore volume of whole L-shaped tank = 1.65 - 0.70 = 0.95m^3

Question 13

A school purchases 30 large bottles of paint online, and pays $12 for delivery. If the total cost of the order is $522, what was the price per bottle of paint?

Answer: $17
This answer can be calculated as follows:
$522 - $12 = $510
$510 ÷ 30 = $17

Question 14

Mike's resting heart rate is 70 bpm, but during exercise it increases by 30%. What is Mike's heart rate during exercise?

Answer: 91 bpm
This answer can be calculated as follows:
130 ÷ 100 x 70 = 91
Mike's heart rate during exercise is 91 bpm.

Question 15

A raffle contains tickets numbered from 1 to 30, of which one is drawn at random. What is the probability that the number of the ticket drawn is NOT a multiple of 4 or 5 (as a fraction in simplest form)?

☐ $\frac{12}{30}$

☐ $\frac{3}{5}$

☐ $\frac{2}{5}$

☐ $\frac{9}{15}$

Answer: $\frac{3}{5}$

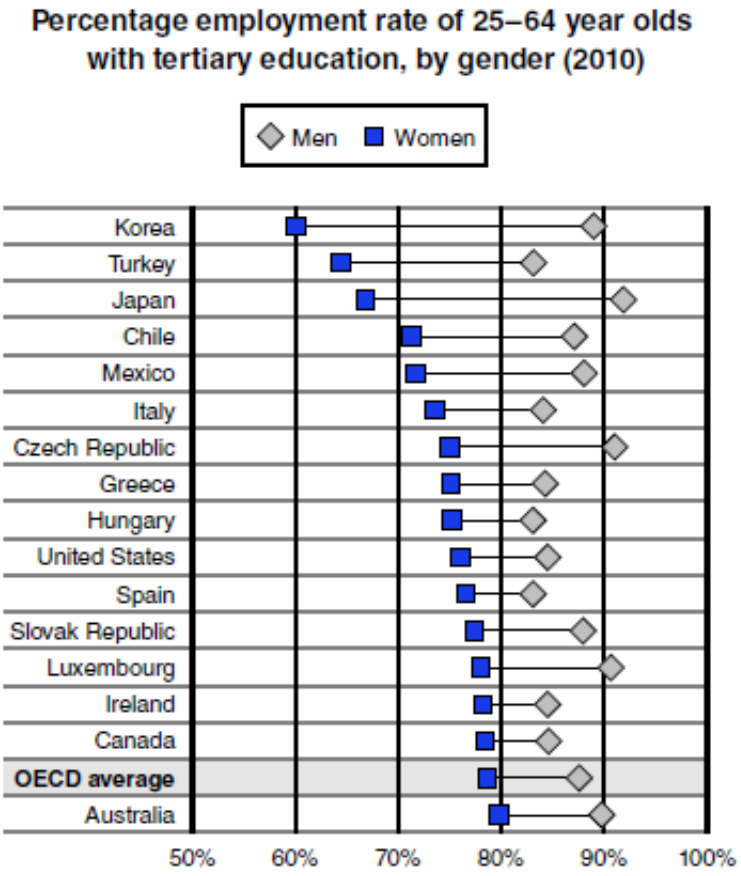
This answer can be calculated as follows:

Multiples of 4 and 5: 4, 5, 8, 10, 12, 15, 16, 20, 24, 25, 28, 30

This leaves 18 possible numbers out of a possible 30 tickets that are NOT a multiple of 4 or 5.

The probability that the number of the ticket drawn is NOT a multiple of 4 or 5 is \frac{18}{30}, which in simplest form is \frac{3}{5}

Question 16



Source: *Education at a Glance* 2012, OECD indicators

The graph above is adapted from the OECD report 'Education at a Glance', 2012. True or false; Chile has a lower rate of employment than Italy for both men and women with tertiary educations?

Answer: False

This answer can be calculated as follows:

The graph shows that the employment rate for men (the grey diamond) in Italy is sitting just above 80%, while in Chile it is closer to 90%. Therefore, the answer is false, as the employment rate for men is higher in Chile than it is in Italy.

Question 17

The highest mark in a class for a test was 57 out of 60, and the lowest mark was 24 out of 60. What is the difference between the highest and the lowest marks as a percentage of the total available marks?

Answer: 55%

This answer can be calculated as follows:

The difference between the highest and lowest mark is: 57 - 24 = 33

Calculating this as a percentage out of 60 gives: 33 ÷ 60 x 100 = 55%

Question 18

A student advisor is creating a timetable for consulting with students. She plans to see each student for 20 minutes, and to see students in 2 hour blocks of consecutive consultations. If the advisor needs to see 45 students, what is the minimum number of 2 hour sessions she will need to schedule?

Answer: 8 sessions
This answer can be calculated as follows:
2 hours = 120 minutes
120 ÷ 20 = 6 students per 2 hour session
45 students ÷ 6 students per session = 7.5
So the advisor will need to schedule a minimum of 8 sessions to see 45 students.

Question 19

	Car	Public transport	Bike	Walking	TOTAL
Male	42	61	12	5	120
Female	43	32	5	0	80
TOTAL	**85**	**93**	**17**	**5**	**200**

The two way table above displays the results of a survey regarding mode of transport to work. The survey was administered to 200 people.

c) True or false; 6.25% of people who ride their bike to work are female?
d) True or false; the percentage of males who take public transport to work is less than the percentage of females who take their car to work?

Answer: False, True
This answer can be calculated as follows:
Part a) is False as there are 17 people who ride their bike to work, 5 of whom are female.
This equates to 5 ÷ 17 x 100 = 29.41%
Part b) is True as the percentage of males who take public transport to work is 61 ÷ 120 x 100 = 50.83%, while the percentage of females who take their car to work is 43 ÷ 80 x 100 = 53.75%

Question 20

Jenny is redecorating her bedroom and wants to cover one of the walls with wallpaper. She measures the wall and finds it is 3m wide and 2.8m high. If the wallpaper she likes costs $25 per square metre, how much will the wallpaper cost in total?

Answer: $210
This answer can be calculated as follows:
The area of the wall will be 3 x 2.8 = 8.4 m^2
Using this to calculate the price gives 8.4 x 25 = $210
The total cost of the wallpaper will be $210

Question 21

The Roman Empire period of ancient Rome lasted from 27 BC to 476 AD (inclusive of both years). Given that the year 1 AD follows the year 1 BC, for how many years did the Roman Empire last?

Answer: 503 years
This answer can be calculated as follows:
27 + 476 = 503 years

Question 22

At Mary and Robert's wedding, 42 of the guests were Mary's family. If this accounted for 30% of the total guests, how many guests were there altogether?

☐ 126

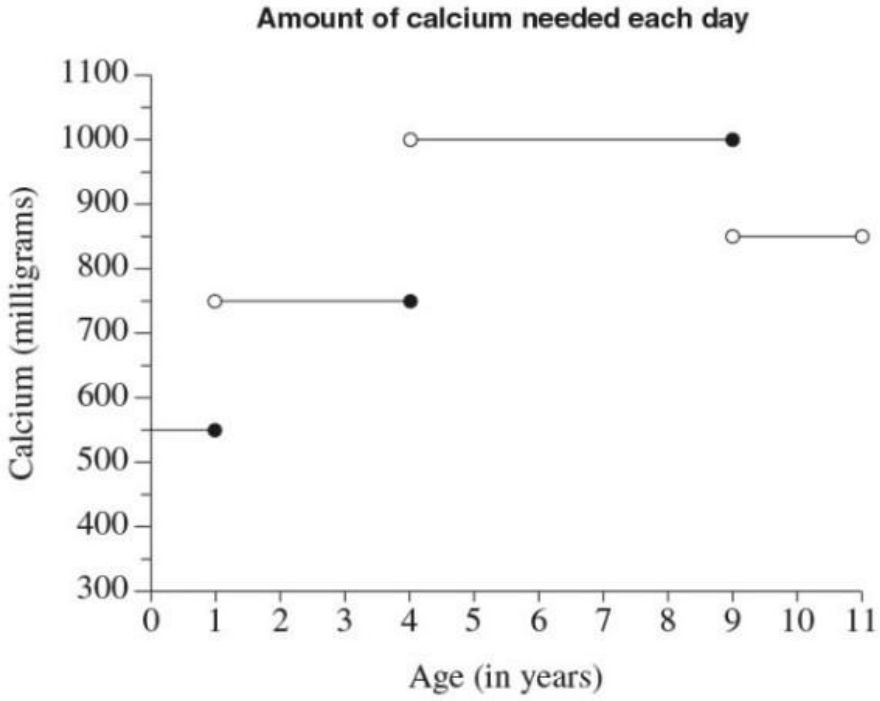
☐ 1260

☐ 72

☐ 140

Answer: 140
This answer can be calculated as follows:
Let G equal the total number of guests.
We have 30% of G = 42
Therefore 0.3 x G = 42
Therefore G = 42 ÷ 0.3
Therefore G = 140
So there were 140 guests altogether.

Question 23



The graph above shows how much calcium children need each day. If Hannah is 3 years old and Luke is 10 months old, how much less calcium does Luke need each day compared to Hannah?

☐ 400mg

☐ 100mg

☐ 300mg

☐ 200mg

Answer: 200mg

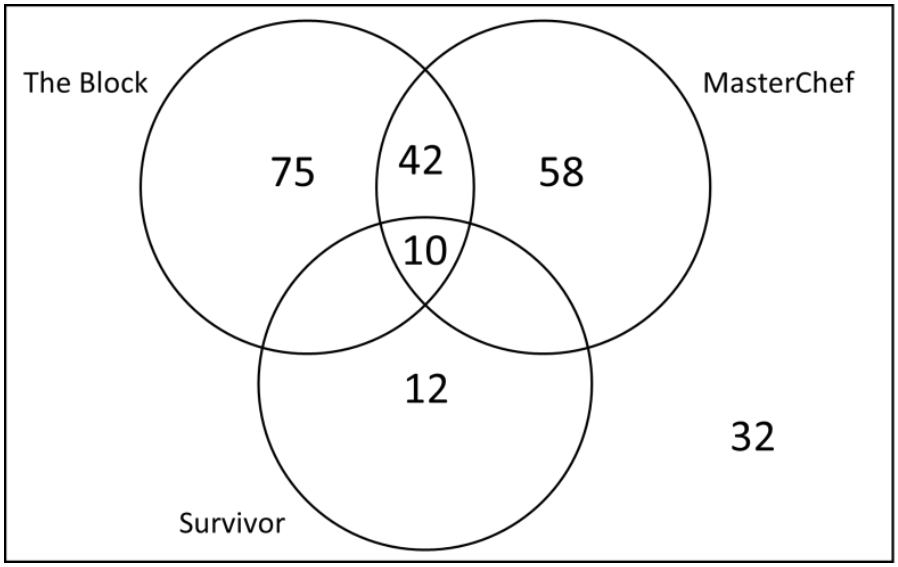
This answer can be calculated as follows:

From the graph we can see that Hannah, being between 1 and 4 years old, needs 750mg and Luke, being less than 1 year old, needs 550mg.

Using those figures, we can calculate the difference 750 - 550 = 200mg

Therefore, Luke needs 200mg less calcium than Hannah in a day.

Question 24



The Venn diagram above displays the results of a survey completed by 330 people in regards to the reality TV shows they watch. Given that 160 participants stated that they watch The Block, what are the number of participants who watch Masterchef and Survivor, but not The Block?

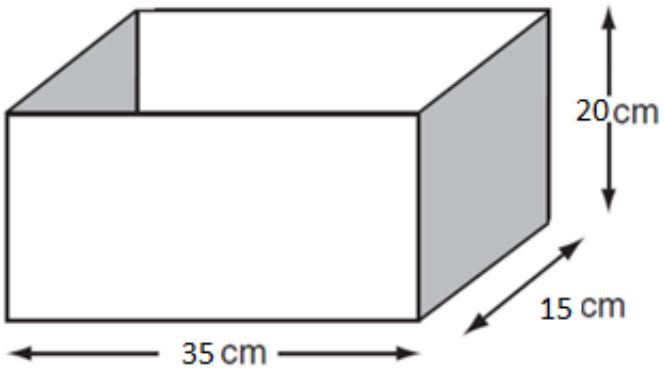
Answer: 68
This answer can be calculated as follows:
Given that there is a total of 330 people surveyed, and 160 of them watch The Block, we can subtract the numbers we know and find the amount leftover.
330 - 160 - 58 - 12 - 32 = 68
So, 68 participants watch Masterchef and Survivor, but not The Block.

Question 25

Jessica has a large number of assignments to mark, and plans to mark a portion each day. On Tuesday she awards the following marks:
48, 33, 45, 36, 29, 44, 38, 31
What is the average mark for these assignments?

Answer: 38
This answer can be calculated as follows:
The mean is calculated by adding up the assignment marks and dividing the total by the number of marks.
48 + 33 + 45 + 36 + 29 + 44 + 38 + 31 = 304
304 ÷ 8 = 38
The mean of the assignment marks is 38.

Question 26



Luke has a container with dimensions shown above. Given that a cube with dimensions 10cm x 10cm x 10cm holds 1L of liquid, how much liquid would Luke's container hold?

Answer: 10.5L
This answer can be calculated as follows:
The volume of this container is:
35cm x 15cm x 20cm = 10 500cm^3
The volume of the small cube is:
10cm x 10cm x 10cm = 1 000cm^3
Therefore the volume of the container is 10 500 ÷ 1 000 = 10.5 times the small cube, meaning its volume is 10.5L

CALCULATOR NOT AVAILABLE Answers

Question 27

54 000 people attended a football match. Of these, only 25% were supporters of the visiting team. How many people were supporters of the visiting team?

Answer: 13 500
This answer can be calculated as follows:
10% of 54 000 is 5 400
So, 5% of 54 000 is 2 700
So, 25% of 54 000 is 5 400 x 2 + 2 700 = 13 500
13 500 people were supporters of the visiting team.

Question 28

Of the 2 500 000 Western Australians surveyed in the 2016 Census, approximately 8% indicated that their country of birth was England. How many Western Australians were born in England?

☐ 20 000
☐ 225 000
☐ 300 000
☐ 200 000

Answer: 200 000
This answer can be calculated as follows:
1% of 2 500 000 is 25 000
Therefore 8% will be 25 000 x 8 = 200 000.
200 000 Western Australians were born in England.

Question 29

Lane	2	3	4	5	6	7	8	9
Name	Bromelli	Simbine	Gatlin	Vicaut	Bolt	De Grasse	Meite	Blake
Time	10.06	9.94	9.89	10.04	9.81	9.91	9.96	9.93

The table above shows the results of a men's 100m final at the Olympics. True or false; the runner who finished 4th was in lane 9 (Blake)?

Answer: True
This answer can be calculated as follows:
Using the table, we can order the times from fastest to slowest, or smallest to largest. We get: 9.81, 9.89, 9.91, 9.93, 9.94, 9.96, 10.04, 10.06
This shows us that the runner who finished 4th had a time of 9.93, which was the time from lane 9 (Blake).

Question 30

Lisa is buying cereal for a fundraising breakfast. If each box of cereal contains 720g and Lisa buys a carton containing 10 boxes, how much cereal will she have in kilograms?

Answer: 7.2kg
This answer can be calculated as follows:
The total weight of the carton in grams will be:
720 x 10 = 7 200
To convert this to kg we divide the answer by 1 000
7 200 ÷ 1 000 = 7.2
The carton will weigh 7.2kg

Question 31

A deli purchases salad in 3.6kg bags, which they then repackage and sell in 450g tubs. How many tubs can they fill from each bag of salad?

☐ 6
☐ 7
☐ 5
☐ 8

Answer: 8
This answer can be calculated as follows:
To convert the weight of the bag from 3.6kg to grams we have to multiply by 1000
3.6 x 1000 = 3 600
Then 3 600 ÷ 450 = 8
The deli can fill 8 tubs from each bag of salad.

Question 32

A country has a population of 8 300 000, of which 2 500 000 live in rural areas.
Which of the following is the closest approximation to the percentage of the population who don't live in rural areas?

☐ 90%
☐ 60%
☐ 80%
☐ 70%

Answer: 70%
This answer can be calculated as follows:
10% of 8 300 000 is approximately 830 000
So, 20% of 8 300 000 will be approximately 1 660 000
And 30% of 8 300 000 will be approximately 2 490 000
Since approximately 30% of the population live in rural areas, approximately 70% of the population don't live in rural areas.