

Year 8 Class 27 questions

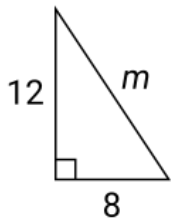
Q1

Maya has gold and silver jewellery in the ratio 2:5.

How many silver pieces of jewellery does she have if there are 12 gold pieces of jewellery?

Q2

Find m correct to 1 decimal place.


 (1 d.p.)

Q3

A triangle has sides of 6 cm, 8 cm and 9 cm. Is it right-angled?

Yes

No

Q4

Choose the best method for collecting data to vote at an election for the local council.

census sample

Q5

There are 5 members in a band.

Name	Age
Pete	23
Angela	25
Ben	18
Craig	37
Kim	23

What is the mean age?

What is the median age?

Which age is an outlier?

Q6

Ruby and Finn share a packet of biscuits in the ratio 6:7.

If Ruby has 30 biscuits, how many biscuits are there altogether?

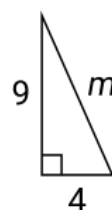
Q7

In an SRC election, the votes for Lucy and Jake were split in the ratio 7:5.

If Lucy received 63 votes, how many votes were cast altogether?

Q8

Written as a surd, m equals



$\sqrt{104}$

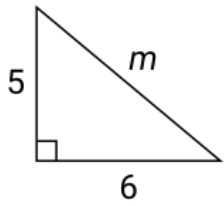
$\sqrt{72}$

$\sqrt{97}$

$\sqrt{26}$

Q9

Written as a surd, m equals



- $\sqrt{68}$
- $\sqrt{60}$
- $\sqrt{22}$
- $\sqrt{61}$

Q10

A triangle has sides of 1.2km, 1.3km and 500m. Is it right-angled?

- Yes No

Q11

{11, 60, m } is a set of 3 numbers written in ascending order which form a Pythagorean triad. Find the value of m .

$m =$

Q12

What type of sampling is being used?

Questioning every fifth customer at a take away food shop.

- Systematic
- Stratified
- Random

Q13

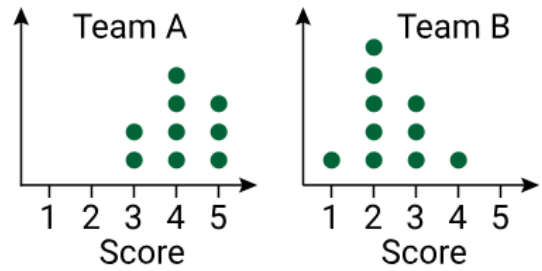
What type of sampling is being used?

Record the colour of every second car that drives through a roundabout.

- Random
- Stratified
- Systematic

Q14

Two teams entered a gymnastics competition. Each member of the team was given a score out of 5.



Which team has more members?

- Team A Team B

Which team has a higher range of scores?

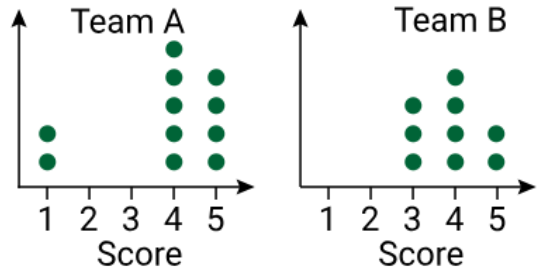
- Team A Team B

Which team has the higher median score?

- Team A Team B

Q15

Two teams entered a skating competition. Each member of the team was given a score out of 5.



Which team has more members?

- Team A Team B

Which team has a higher range of scores?

- Team A Team B

How many members of Team A scored below everyone in Team B?

Q16

In a park the ratio of gum trees to wattle trees is 9:7. There are 42 wattle trees.

Find the difference between the number of gum trees and wattle trees.

Q17

In a display room the model aeroplanes to model cars is 5:3. There are 21 model cars on display.

Find the difference between the number of model cars and model aeroplanes.

Q18

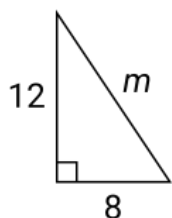
The ratio of boys to girls in a pre-school is 5:8. Currently there are 16 girls in the pre-school. Next week, 3 girls are leaving while 5 new boys will join the pre-school.

Find what the new ratio of boys to girls will be.

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Q19

Written as a surd, m equals



$\sqrt{208}$

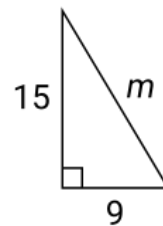
$\sqrt{192}$

$\sqrt{214}$

$\sqrt{40}$

Q20

Written as a surd, m equals



$\sqrt{48}$

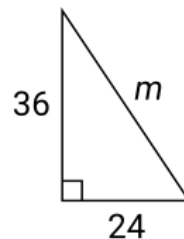
$\sqrt{270}$

$\sqrt{314}$

$\sqrt{306}$

Q21

Written as a surd, m equals



$\sqrt{1872}$

$\sqrt{120}$

$\sqrt{1728}$

$\sqrt{1877}$

Q22

$\{16, m, 34\}$ is a set of 3 numbers written in ascending order which form a Pythagorean triad. Find the value of m .

$m =$

Q23

$\{27, m, 45\}$ is a set of 3 numbers written in ascending order which form a Pythagorean triad. Find the value of m .

$m =$

Q24

$\{40, m, 58\}$ is a set of 3 numbers written in ascending order which form a Pythagorean triad. Find the value of m .

$m =$

Q25

The table shows the number of students at Parkes High.

Year	No. of students
9	185
10	178
11	182
12	176
Total	721

A stratified random survey of 50 students was conducted:

What percentage of students should be from Year 9?

21.6% 25.7% 28.3% 32.4%

How many Year 12 students should be surveyed?

14 176 9 12

Q26

A school with 850 students is conducting a random survey. Each student is given an identity number from 1 to 850. The number 0.4 is given to identify a student to survey.

What is the identity number of the student to be surveyed?

Q27

A school with 630 students is conducting a random survey. Each student is given an identity number from 1 to 630. The number 0.7 is given to identify a student to survey.

What is the identity number of the student to be surveyed?

Q28

Mr Nolan and Ms Walker teach the senior maths classes at a school. Their students sat a test and their results are shown below.

Mr Nolan			Ms Walker			
			3	2		
		6	4	2	4	
		5	5	0	8	
		8	6	2		
8	6	0	7	0	2	6
			8			
		4	4	9	0	

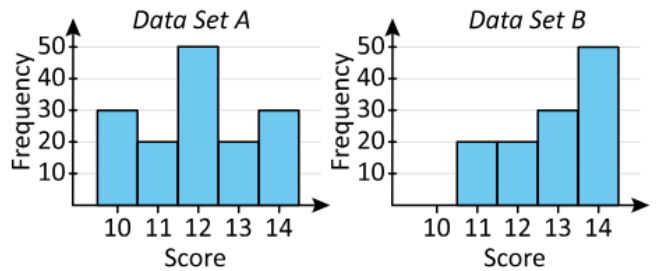
What was the highest mark in Ms Walker's class?

What was the highest overall mark?

Find the difference between the median marks of the two classes.

Q29

Consider the data sets below.



Which data set has the highest mode?

- Set A Set B

Which data set is symmetrical?

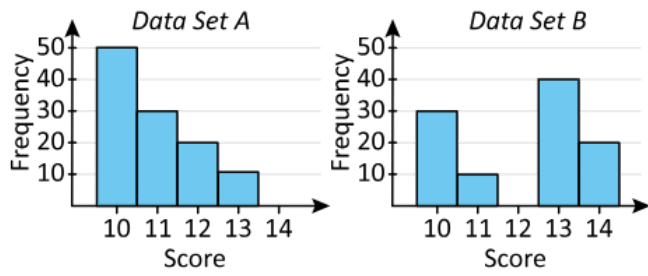
- Set A Set B
- Both sets Neither

Which data set is skewed?

- Set A Set B
- Both sets Neither

Q30

Consider the data sets below.



Which data set has the highest mode?

- Set A Set B

Which data set is symmetrical?

- Set A Set B
- Both sets Neither

Which data set is skewed?

- Set A Set B
- Both sets Neither
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