Year 9 Class 24 questions

Q1

Consider the following survey question:

> What is your age (in years)?
>
> _____ years

The type of data being collected is

➡ Numerical (discrete)

Numerical (continuous)

Q2

Quiz results

```
          7P              7R
    5  4  3  2 | 4 | 5
9 8 7  6  4  2 | 5 | 1  2
   8  7  7  5  4 | 6 | 0  3  4  6
      4  3  1 | 7 | 2  3  4  6  7  9
            2 | 8 | 4  5  7  7  8
```

4|5 represents 45

Which classes results are positively skewed?

➡ ◉ 7P   ○ 7R

How many students are in 7R?

[   ] 18

What is the mode in 7R?

[   ] 87

Q3

Complete the frequency distribution table for the following data:

| 21 | 24 | 25 | 23 | 22 | 26 | 25 |
| 23 | 24 | 21 | 23 | 26 | 23 | 24 |

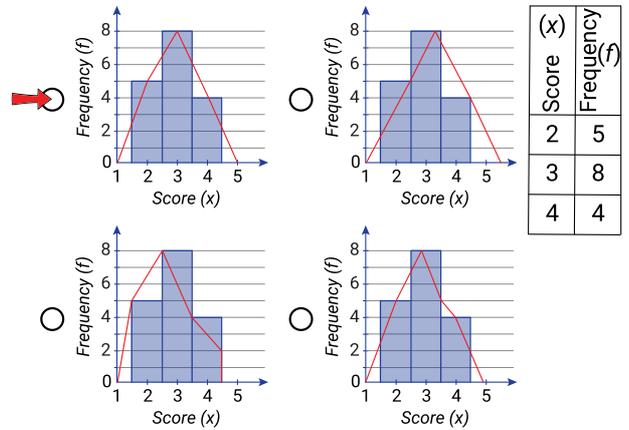| Score	Freq.	
21	[ ]	2
22	[ ]	1
23	[ ]	4
24	[ ]	3
25	[ ]	2
26	[ ]	2

What's the lowest score?

[   ] 21

How many scores of 24 or more are there?

[   ] 7

Q4

Select the correct frequency histogram and polygon.

Score (x)	Frequency (f)
2	5
3	8
4	4

Q5
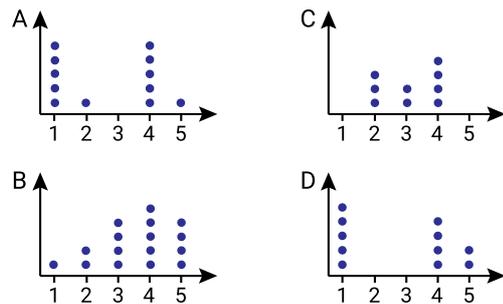
Which data set has the smallest range?

[   ] C

Which data set is negatively skewed?

[   ] B

Which data set has two clusters?

[   ] A

Q6

Consider the following survey question:

How many days a week do you play sport?

The type of data being collected is

Categorical (distinct)   Categorical (ordered)

➡ Numerical (discrete)   Numerical (continuous)

Q7

Consider the following survey question:

How much do you weigh?

The type of data being collected is

Categorical (distinct)   Categorical (ordered)

➡️ Numerical (continuous) Numerical (discrete)

Q8

Time (seconds) to complete race.

```
        8B              8C
       9 9 | 0 |
     8 7 6 5 | 1 |
 8 8 7 5 5 4 2 | 2 | 4 4 6 8
     3 2 2 0 | 3 | 0 2 2 3 7 8 8
       2 0 | 4 | 2 3 3 4 6 7
```

2 | 6 represents 26 seconds

The data for 8B is [   ]

symmetrical

positively skewed   negatively skewed

symmetrical

What was the slowest time?

[   ] seconds   *47 seconds*

What was the range for 8B?

[   ] seconds   *33 seconds*

Q9

High Jump Results

```
      8P              8R
     6 4 1 | 13 | 8
   7 7 5 2 0 | 14 | 2
 9 7 7 4 5 1 0 | 15 | 4 6 7 9
     6 5 3 3 2 | 16 | 0 1 4 5 6 8 8
       6 3 1 | 17 | 0 0 2 3 5 7
```

13 | 6 represents 136 cm

The data for 8P is [   ]

symmetrical

positively skewed   negatively skewed

symmetrical

What was the highest jump?

[   ] cm   *177 cm*

What was the median result for 8R?

[   ] cm   *165 cm*

Q10

The number of students in each class is recorded at the start of Period 1.

No.of students	Freq.
5	1
13	3
15	6
28	3
29	4
30	4

How many students were in the largest class?

[   ]   *30*

How many classes were there?

[   ]   *21*

How many classes had more than 20 students?

[   ]   *11*

Q11

The number of runners in each heat of a race are recorded.

No.of runners	Freq.
8	6
9	8
10	2
11	1

How many heats were held?

[ ] 17

What is the modal (mode) number of runners in a race?

[ ] 9

What is the range?

[ ] 3

Q12

Select the correct frequency histogram and polygon.

(x) Score	Frequency (f)
8	4
9	7
10	2

Q13

Select the correct frequency histogram and polygon.

(x) Score	Frequency (f)
21	7
22	5
23	4

Q14

Maths Olympics Results

				8 White		8 Orange				
			5	1	1 2 2 2 4 7					
		3	1	2	2 3 5 6 8 9 9					
8	6 4 2	1	3	0 2 3 4						
	7 7 5	0	4	1 2						

Which class had the highest score?

➡ ○ 8 White   ○ 8 Orange

Which class had the lowest range?

○ 8 White   ➡ ○ 8 Orange

Which classes results were positively skewed?

○ 8 White   ➡ ○ 8 Orange

Q15

English Quiz Results

			8C			8D			
			9	0	7 8				
8 8	7 5	2	1	1 2 3 9					
8 6	3	1	2	5 5 7 8					
	5	4	3	1 2					

Which class has the highest score?

○ 8D   ➡ ○ 8C

What was the range of 8D?

[ ] 25

Which classes results were symmetrical?

➡ ○ 8D   ○ 8C

Q16

What type of data is displayed in this graph?

Favourite hot drink
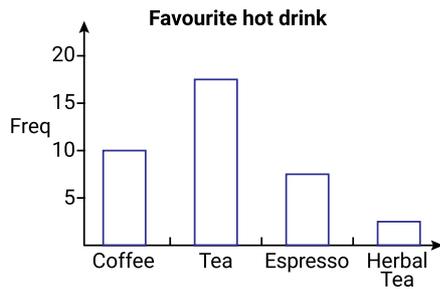
➡️ Categorical (distinct)   Categorical (ordered)

Numerical (discrete)   Numerical (continuous)

Q17

What type of data is displayed in this graph?

Pets owned by 7B

| Dog | Cat | Budgie | Fish |

➡️ Categorical (distinct)   Categorical (ordered)

Numerical (discrete)   Numerical (continuous)

Q18

What type of data is displayed in this graph?

Number of people in Kate's cafe
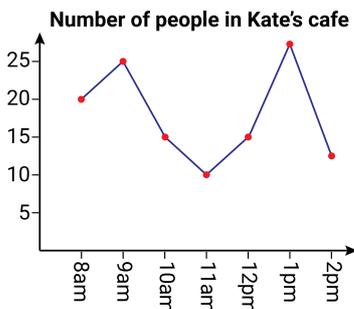
Categorical (distinct)   Categorical (ordered)

➡️ Numerical (discrete)   Numerical (continuous)

Q19

Test Results

9A			9B
5	5	0	8
8	6	2	
8 6 0	7	0 2 6 8	
6 4	8	6 8	
4 4	9	0	

6|2 represents 62

Which classes results are negatively skewed?

➡️ ◯ 9A   ◯ 9B

What is the median for 9B?

[   ]   74

Overall, which classes results were better?

➡️ ◯ 9A   ◯ 9B

Q20

Speed Skills Finishing Times

Addition   Multiplication

Addition		Multiplication
	1	8
	2	6 7 7 9
9 8 7 6	3	0 1 4 5 7 8
9 8 6 5 5 4 2	4	0 0 3 6
8 7 7 3 1	5	2

3|2 represents 32 seconds

Which results are symmetrical?

◯ addition   ➡️ ◯ multiplication

What is the median time for the addition questions?

[   ] seconds   45.5

Which questions were the class slower at?

➡️ ◯ addition   ◯ multiplication

Q21

50 m Freestyle Times (seconds)

Tim						Paige				
			9	30	0	1	3	4	6
	8	6	5	31	2	4	4	7	
9	5	5	5	0	32	3			
	7	2	1	33	1				
			4	34	2	2	8		

34|3 represents 34.3 seconds

Find the range in times for Tim.

☐ seconds   *3.5*

Who had the more consistent results?

➡◉ Tim   ○ Paige

Who is more likely to beat the record of 29.8 seconds?

○ Tim   ➡◉ Paige

Q22

Score	Freq.
42	3
43	1
44	4
45	2
46	1
47	2

Mode = ☐   *44*

How many scores are less than the mode?

☐   *4*

How many scores are greater than or equal to the mode?

☐   *9*

Q23

Jen records the number of goals she scores each game for a season.

No. of goals	Freq.
0	2
1	7
2	4
3	5

What is the mode?

☐   *1*

What is the range?

☐   *3*

How many goals did she score in the season?

☐   *30*

Q24

The number of accidents per day is recorded in a particular area?

No. of accidents	No. of days
0	2
1	3
2	5
3	3
4	4
5	6

Find the mode.

☐   *5*

On how many days did more than three accidents occur?
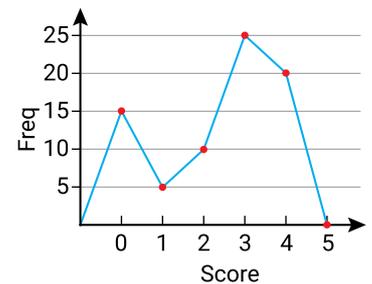
☐   *10*

Calculate the number of accident-free days.

☐   *2*

Q25

The contestants in a talent show are given a score out of 5. The results are shown in this frequency polygon. Use the graph to complete the frequency distribution table.

Score	Freq.
0	☐ *15*
1	☐ *5*
2	☐ *10*
3	25
4	☐ *20*
5	☐ *0*

What was the range in scores?

☐   *4*

How many contestants scored 4 or more points?
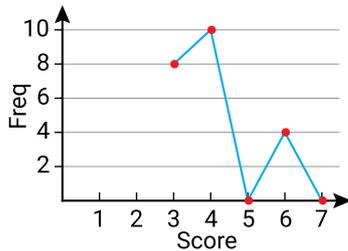
☐   *20*

What was the modal (mode) score?

☐   *3*

Q26

A teacher recorded the results for her class on a short test. The results are shown in this frequency polygon. Use the graph to complete the frequency distribution table.

Score	Freq.
3	8
4	10
5	0
6	4
7	0

What was the highest mark a student scored?
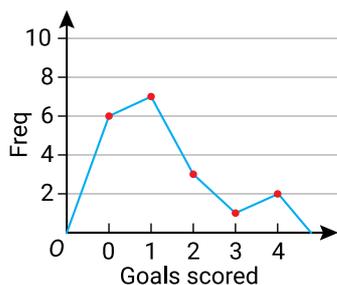
6

How many students are in the class?

22

What was the modal (mode) score?

4

Q27

Amelia recorded the number of goals she has scored each game. The results are shown in this frequency histogram. Use the graph to complete the frequency distribution table.

Score	Freq.
0	6
1	7
2	3
3	1
4	2

What was the range in scores?

4

How many games did Amelia play?

19

How many goals did she score in total?

24

Q28

Team Scores

Dragons					Panthers			
9	8	8	6	0	6	8		
6	4	4	4	1	4	4	8	8
		8	4	2	0	4	6	8
			8	3	2			

Calculate the mean for the Panthers.

(1 d.p.)   18.9

Calculate the median for the Dragons.

14

Which team achieved better results?

○ Dragons   ➡️⊘ Panthers

Q29

Team Scores

Swifts					Lightning			
		8	6	3	0	2	4	6
9	9	7	5	4	5			
8	7	6	2	5	5	7		
	4	2	6	1	8	8	9	

Calculate the mean for the Swifts.

(1 d.p.)   51.1

Calculate the median for the Lightning.

55

Which team was more consistent?

➡️⊘ Swifts   ○ Lightning

Q30

Team Scores

			Dockers		Cats				
	3	2	2	10	5	7			
9	9	4	1	0	11	3	3	4	6	9
8	6	3	3	2	12	0			
	4	2	2	13	4	4	5	8	

Calculate the mean for the Cats.

[   ] (1 d.p.)   120.7

Calculate the median for the Dockers.

[   ]   120.5

Which team was more consistent?

➡ ◯ Dockers   ◯ Cats