Name: _____

ENVISION TUITION 11 PLUS PAPER

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Date:

Time: 1 hour

Total marks available:

Total marks achieved: _____

GENERAL 11 PLUS PAPER CREATED BY ENVISION TUITION.

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Questions

Q1.

Jon left work at 16:45

It took him 10 minutes to walk to the train station.

He waited 7 minutes for the train to leave the station.

The train journey took 18 minutes.

Jon then walked for 5 minutes from the train station to his home.

What time did Jon arrive home?

.....

(Total for question = 2 marks)

Q2.

Answer the question with a cross in the box you think is correct ☒ . If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒ .

Work out

$$3^2 + (17 - 8) \times 4 - 3$$

–9	18	42	69
☐	☐	☐	☐

(Total for question = 1 mark)

Q3.

This tally chart shows the favourite colours of the students in Jai's class.

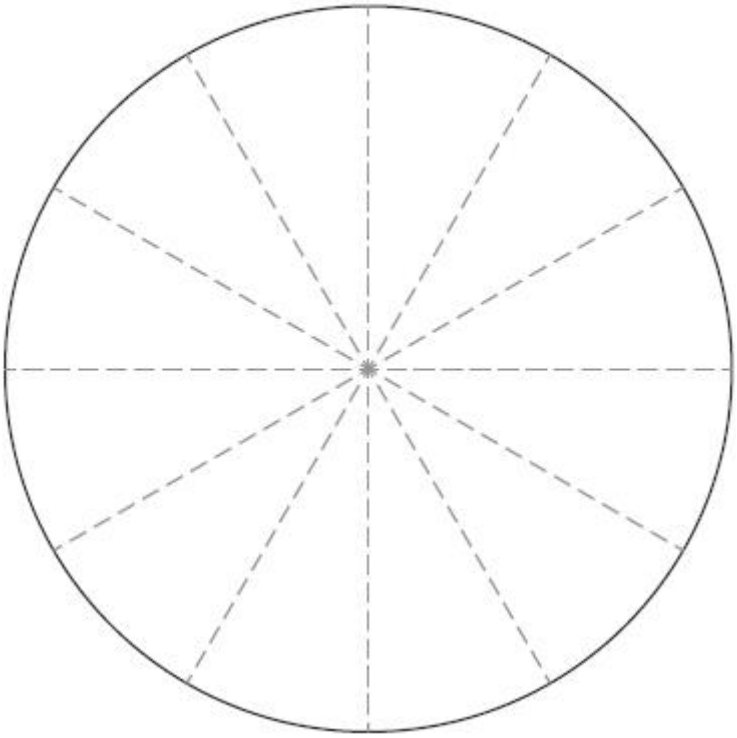
Colour	Tally	Total
Red	𝍸	4
Yellow	𝍸 𝍸	
Green		3
Blue		6
Purple	𝍸	

(a) Complete the tally chart.

(2)

(b) Use the information from the tally chart to complete this pie chart.

Favourite colours



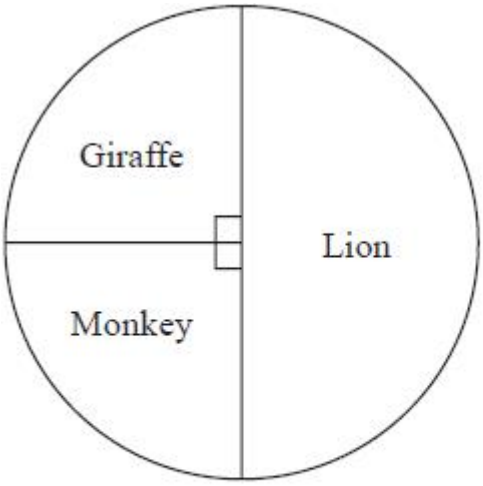
(3)

(Total for question = 5 marks)

Q4.

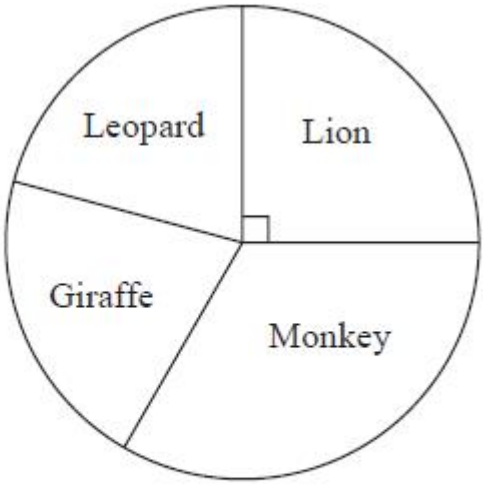
Jess did a survey of animals registered at two wildlife parks.

She presented her results in these two pie charts.



Sunny Hills Wildlife Park

120 animals



Long Ridge Wildlife Park

240 animals

(a) Jess says

"There are more lions at Sunny Hills Wildlife Park than there are at Long Ridge Wildlife Park."

Is Jess correct?

Yes ☐ No ☐

Explain how you know.

.....

.....

.....

(2)

$\frac{1}{3}$ of the animals at Long Ridge Wildlife Park are monkeys.

There are the same number of leopards as there are giraffes at Long Ridge Wildlife Park.

(b) How many giraffes are there at Long Ridge Wildlife Park?

You must show your working.

..... giraffes

(3)

(Total for question = 5 marks)

Q5.

(a) Write

$$\frac{18}{24}$$

as a fraction in its simplest form.

.....

(1)

(b) Work out

$$2\frac{3}{5} + \frac{4}{5}$$

.....

(2)

(c) Work out

$$\frac{1}{3} \times \frac{2}{5}$$

.....

(1)

(d) Calculate

$$\frac{1}{6} \div 4$$

.....

(1)

(Total for question = 5 marks)

Q6.

This clock shows the time a train is due to arrive at a station.

(a) How would this be displayed on a digital clock?

:

(1)

(b) The train is 35 minutes late.

What time does the train arrive at the station?

:

(1)

(Total for question = 2 marks)

Q7.

Here is a list of numbers.

1 2 3 4 6 8 12

(a) Write down all the numbers from the list that are factors of 8

.....

(1)

(b) Write down all the numbers from the list that are multiples of 3

.....

(1)

(Total for question = 2 marks)

Q8.

(a) Write this improper fraction as a mixed number fraction.

$$\frac{14}{3}$$

.....

(1)

(b) Write this mixed number fraction as an improper fraction.

$$2\frac{5}{8}$$

.....

(1)

(Total for question = 2 marks)

Q9.

Sadio needs to buy

1 Pineapple
6 Strawberries
3 Oranges

Pineapple
$3.25 each

Strawberries
$0.45 each

Oranges
$1.69 each

He has $11

Does he have enough money to buy the fruit?
You must show your working.

(Total for question = 3 marks)

Q10.

Here is a distance chart.

All distances are given in kilometres.

New Town					
42	Greenville				
230	249	Sugar Top			
212	230	60	Sun City		
191	210	122	69	Water Bay	
224	243	38	24	96	Bridge Town

It is 42 km from New Town to Greenville.

(a) How far is it from Greenville to Sugar Top?

..... km

(1)

(b) Yusuf drives from Sun City to New Town.

He stops after 60 km to get fuel.
How much further does he have to travel?

..... km

(2)

(Total for question = 3 marks)

Q11.

Calculate

2301 × 27

You must show your working.

.....

(Total for question = 2 marks)

Q12.

Calculate

2556 ÷ 18

You must show your working.

.....

(Total for question = 2 marks)

Q13.

Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Calculate

35% of 120

12	36	40	42
☐	☐	☐	☐

(Total for question = 1 mark)

Q14.

Answer the question with a cross in the box you think is correct ☒ . If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒ .

Calculate

40% of 180

18	45	72	108
☐	☐	☐	☐

(Total for question = 1 mark)

Q15.

Answer the question with a cross in the box you think is correct ☒ . If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒ .

Calculate

$4a + 3b - c$

when $a = 2$, $b = 3$, $c = 7$

5	10	68	75
☐	☐	☐	☐

(Total for question = 1 mark)

Q16.

Complete this table.

	Fraction	Decimal	Percentage
(i)	$\frac{1}{2}$	0.5	..... %
(ii)	.....	0.75	75%
(iii)	$\frac{3}{10}$	.....	30%

(Total for question = 3 marks)

Q17. Mr Jones asked his students what their favourite sport was. He displayed their answers in this tally chart.

Sport	Tally	Total
Swimming	𝍸 |||	
Football	|||	3
Running	𝍸 ||	
Hockey	|||	

(a) Complete the tally chart for this data.

(1)

(b) Construct a bar chart to represent this data.

Bar chart of favourite sports

(3)

(Total for question = 4 marks)

Q18.

Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Calculate

$$\frac{4}{5} \div 8$$

$\frac{1}{10}$ ☐

$\frac{2}{5}$ ☐

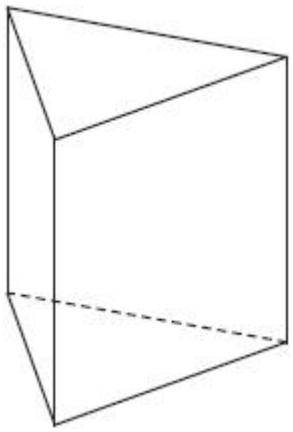
$\frac{32}{40}$ ☐

$\frac{40}{4}$ ☐

(Total for question = 1 mark)

Q19.

Here is a triangular prism.



(a) How many faces does it have?

.....

(1)

(b) How many vertices does it have?

.....

(1)

(c) How many edges does it have?

.....

(1)

(Total for question = 3 marks)

Q20.

Find a 2-digit number that is both a **square number** and a **cube number**.

.....

(Total for question = 2 marks)

Q21.

Aamir is making vegetable soup for 25 guests.

He is going to use the following recipe.

Vegetable soup

2 potatoes
6 onions
12 carrots
8 tomatoes

Makes 10 portions

Aamir already has:

4 potatoes

3 onions

15 carrots

11 tomatoes

How many more of each vegetable does he need?

You must show your working.
One has been done for you.

1 ..... potato

..... onions

..... carrots

..... tomatoes

(Total for question = 3 marks)

Q22.

240 students were asked how they travelled to school.

25% came by car.

30% came by bus.

The remaining students walked to school.

Janine says

'*more than 100 students walked to school*'

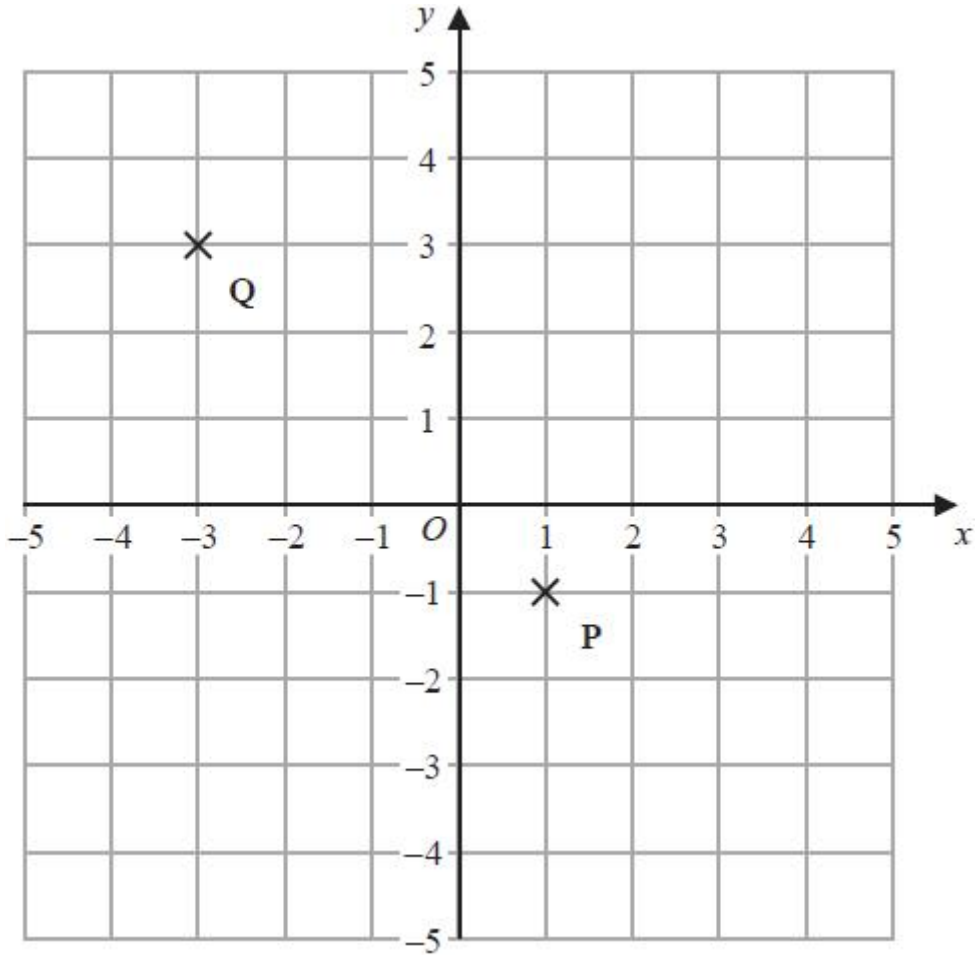
Is Janine correct?

You must show your working.

(Total for question = 3 marks)

Q23.

Points P and Q are plotted on the coordinate grid.



(a) Plot point S (3, 1)

(1)

(b) Point R completes the rectangle PQRS.

What are the coordinates of point R?

(..... , ...)

(1)

(Total for question = 2 marks)

Mark Scheme

Q1.

Question number	Answer	Notes	Mark
	17:25	M1 evidence of an attempt to add **all of** 10, 7, 18 and 5 to 16:45 A1 cao Accept 5:25	2

Q2.

Question number	Answer	Mark
	The only correct answer is C - 42 A is not correct because $-9 = 3^2 + 17 - (8 \times 4) - 3$ B is not correct because $18 = 3^2 + (17 - 8) \times (4 - 3)$ D is not correct because $69 = (3^2 + 17 - 8) \times 4 - 3$	**(1)**

Q3.

Question number	Answer	Notes	Mark
a	Yellow total = 10 Green tally (3) Blue Tally (5 'gated' and 1) Purple total = 1	B2 for fully correct If not B2, then B1 for 2 or 3 correct	2

Question number	Answer	Notes	Mark
b	Red 2 sections shaded Yellow 5 sections shaded Green 1½ sections shaded Blue 3 sections shaded Purple ½ section shaded	B3 - fully correct AND labelled pie chart B2 - fully correct sections with no labels **or** at least 2 correct AND labelled sections B1 – 1 correct AND labelled section **NB: Must see sections drawn**	3

Q4.

Question number	Answer	Notes	Mark
a	No and correct reason	B2 for No **AND** there are 60 lions at both park If not B2 then B1 for correctly finding 60 lions at Sunny Hills **or** 60 lions at Long Ridge	2

Question number	Answer	Notes	Mark
b	50	M1 for correct method to find number of monkeys at Long Ridge: e.g. 240 ÷3 (=80) 240/3 (=80) $\frac{1}{3} \times 240$ (=80) M1 for full method to find the number of leopards **or** giraffes at Long Ridge: e.g. (240 – ("60" + "80"))÷2 **or** 240 – "60" – "80" (=100) **and** "100" ÷2 A1 Dep M1	3

Q5.

Question number	Answer	Notes	Mark
a	$\frac{3}{4}$	B1 cao	1

Question number	Answer	Notes	Mark
b	$3\frac{2}{5}$ or $\frac{17}{5}$	B2 Accept equivalent fractions e.g. $3\frac{4}{10}$, $\frac{34}{10}$ etc If not B2, then B1 for $\frac{13}{5}$ or $\frac{7}{5}$ Accept equivalent fractions e.g. $\frac{14}{10}$ etc	2

Question number	Answer	Notes	Mark
c	$\frac{2}{15}$ oe	B1 Accept any equivalent fraction here e.g. $\frac{4}{30}$, $\frac{20}{150}$, $\frac{30}{225}$ etc	1

Question number	Answer	Notes	Mark
d	$\frac{1}{24}$ oe	B1 Accept any equivalent fraction here e.g. $\frac{2}{48}$, $\frac{10}{240}$ etc	1

Q6.

Question number	Answer	Notes	Mark
a	11:40 or 23:40	B1	1

Question number	Answer	Notes	Mark
b	12:15 or 00:15	B1	1

Q7.

Question number	Answer	Notes	Mark
(a)	1 2 4 8	B1	(1)

Question number	Answer	Notes	Mark
(b)	3 6 12	B1	(1)

Q8.

Question number	Answer	Notes	Mark
a	$4\frac{2}{3}$	B1	1

Question number	Answer	Notes	Mark
b	$\frac{21}{8}$	B1	1

Q9.

Question number	Answer	Notes	Mark
	No & \$11.02 or No & \$0.02 too expensive Or \$11.02 and 'not enough'	M1 for a correct method to find the cost of 6 strawberries or 3 oranges e.g. 0.45 x 6 (= "2.70") **or** 0.45+0.45+0.45+0.45+0.45+0.45(="2.70") **or** 1.69 x 3 (= "5.07") **or** 1.69+1.69+1.69 (= "5.07") M1 for a complete method to find the total for a. fruit e.g. 3.25 + "2.70" + "5.07" (=11.02) A1 No AND a correct answer	3

Q10.

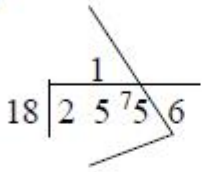
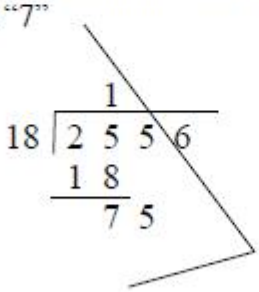
Question number	Answer	Notes	Mark
a	249	B1	(1)

Question number	Answer	Notes	Mark
b	152	M1 for 212 - 60 OR for 212 unambiguously identified A1 cao	(2)

Q11.

Question number	Answer	Notes	Mark
	62 127	M1 for a complete method with NO place value errors (allow one calculation error) **OR** **46 020 and 16 107** seen (as a minimum in jottings from informal methods) A1 (DEP) cao	2

Q12.

Question number	Answer	Notes	Mark
	142	M1 for a correct first step to solving the division Eg: Short division: 1 r7 (with 7 correctly placed between the two 5's)  Long division 1 seen AND 18 subtracted from 25 AND the 2nd 5 brought down alongside "7"  Chunking methods can be used but must be complete (equal sized chunks are acceptable) A1 (DEP) cao	2

Q13.

Question number	Answer	Mark
	D 42	(1)

Q14.

Question number	Answer	Mark
	The only correct answer is C - 72 A is not correct because 18 is 10% B is not correct because 45 is ÷4 D is not correct because 108 is 60% (180 – 40%)	**(1)**

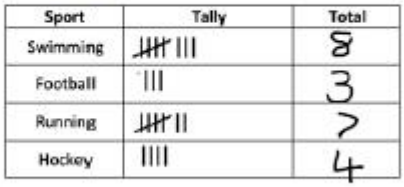
Q15.

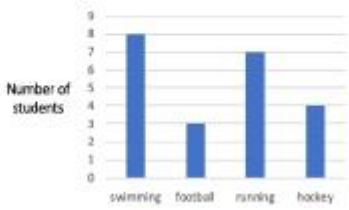
Question number	Answer	Mark
	The only correct answer is B - 10 A is not correct because 5 is (4+2)+(3+3)-7 C is not correct because 68 is (42)+(33)-7 D is not correct because 75 is (42)+(33)	**(1)**

Q16.

Question number	Answer	Notes	Mark
i)	50	B1	**(3)**
ii)	¾	B1 accept equivalent fraction	
iii)	0.3	B1	

Q17.

Question number	Answer	Notes	Mark
a	Tally Chart  	B1 fully correct tally chart	1

Question number	Answer	Notes	Mark
b	Bar Chart  	B1 Linear Scale (starting at 0) B1 Correct labelling on each axis B1 Correct bar heights NB ft their incorrect tally chart	3

Q18.

Question number	Answer	Mark
	A $\frac{1}{10}$	(1)

Q19.

Question number	Answer	Notes	Mark
a	5	B1	1

Question number	Answer	Notes	Mark
b	6	B1	1

Question number	Answer	Notes	Mark
c	9	B1	1

Q20.

Question number	Answer	Notes	Mark
	64	M1 for square numbers listed to at least 64 OR cube numbers listed to 64 (accept one error or omission) A1 Accept: 64 unambiguously identified for **both** square **and** cube numbers	(2)

Q21.

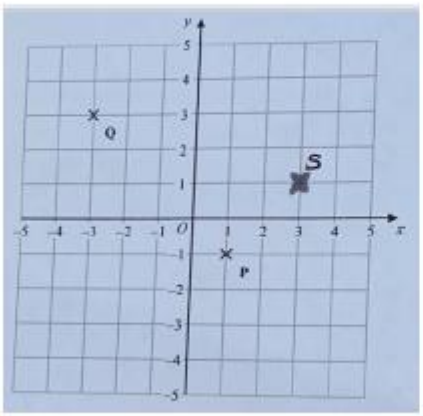
Question number	Answer	Notes	Mark
	1 potato 12 onions 15 carrots 9 tomatoes	M1 for scale factor 2.5 **or** a correct method to find one correct required value. e.g. 2+2+1(=5) or 6+6+3(=15) or 12+12+6(=30) or 8+8+4(=20) M1 for 3-4 required values: e.g. 5 potatoes or 15 onions or 30 carrots or 20 tomatoes **or** One correct final answer clearly identified: e.g. 12 onions or 15 carrots or 9 tomatoes A1 dep on M1	3

Q22.

Question number	Answer	Notes	Mark
	Yes and 108	M1 for a method to calculate one percentage e.g. $240 \times 25 \div 100 (= 60)$ **or** $240 \times 30 \div 100 (= 72)$ **or** $240 \times 55 \div 100 (= 132)$ M1 for a fully correct method to find how many students walked e.g. 240 – ('60' + '72') (= 108) **or** 240 – '132' (=108) A1 for YES & 108 seen	3

		<u>Alternative method</u> M1 for a method to find total percentage travelling by car + bus e.g. 25% + 30% (= 55%) 25 + 30 (= 55) **or** for a method to find percentage who walk e.g. 100% – '55%' (= 45%) M1 for a fully correct method to find how many students walked e.g. $240 \times 45 \div 100 (= 108)$ **or** $240 - '(240 \times 55 \div 100)' (= 108)$ A1 for YES & 108 seen	

Q23.

Question number	Answer	Notes	Mark
(a)	Point S plotted at (3, 1) 	B1	(1)

Question number	Answer	Notes	Mark
(b)	(-1, 5)	B1	(1)