Name: _____

ASM Tuition Academy

RATIO

Instructions:

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided

- there may be more space than you need.

- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all you're working out.**

Information:

- The marks for each question are shown in brackets

- use this as a guide as to how much time to spend on each question.

Advice:

- Read each question carefully before you start to answer it.
- Keep an eye on time.
- Try to answer every question.
- Check your answers if you have time at the end.

Q1. Ahmed and Daniyal share £100 in the ratio 4 : 1. Work out how much each of them gets.

(Total for question 1 is 3 marks)

Q2. Aliya, Hina, and Sana share 48 sweets in the ratio 4 : 3 : 1. Work out the number of sweets each of them receives.

(Total for question 2 is 3 marks)

Q3. PQR is a straight line.



The length of QR is three times the length of PQ. PR = 120 metres. Work out the length QR.

(Total for question 3 is 3 marks)

Q4. Ayesha and Hamza share some money in the ratio 4 : 1.

Ayesha gets £90 more than Hamza.

(Total for question 4 is 3 marks)

Q5. Usman and Hassan share some money in the ratio 3 : 5.
Hassan gets £800.
Work out how much money Usman gets.

(Total for question 5 is 3 marks)

Q6. Hammad and Bilal share some candies in the ratio 3 : 8. Bilal gets 25 more candies than Hammad. Work out how many candies Bilal gets.

(Total for question 6 is 3 marks)

Q7. Ahmed is making a cake.
He mixes flour, milk, and eggs in the ratio 5: 3: 2.
Ahmed uses 150 grams of milk.
Work out how much flour and eggs he uses.

(Total for question 7 is 3 marks)

Q8. Amir and Bilal shared £450 in the ratio 3: 6.
Amir gave half of his share to Zain.
Bilal gave one-fifth of his share to Zain.
What fraction of the £450 did Zain receive?

(Total for question 8 is 3 marks)

Q9. PQR is a straight line.



The length of QR is four times the length of PQ. QR = 160 metres. Work out the length PR.

(Total for question 9 is 3 marks)

Q10. Claire is going to make some orange paint. She needs to mix red paint, yellow paint and white paint in the ratio 5: 4: 1.
Claire wants to make 900 ml of orange paint. Claire has:

420 ml red paint

360 ml yellow paint

100 ml white paint

Does Claire have enough red, yellow and white paint to make the 900 ml? Show all working.

(Total for question 10 is 4 marks)

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Q11 Ayesha is going to make a drink using the instructions below:

Mix 2 parts of syrup with 3 parts of soda water.

Ayesha has 160 ml of syrup and 270 ml of soda water.
What is the greatest amount of drink Ayesha can make?

(Total for question 11 is 3 marks)

Q12. In a bag there are only pink counters, yellow counters and red counters. A counter is taken at random from the bag. The table shows the probability of getting a pink counter.

Colour	pink	yellow	White
Probability	0.56		

the number of yellow counters : the number of white counters = 3 : 4 Find the probability of getting a yellow counter and a white counter.

(Total for question 12 is 4 marks)

Q13. Amir, Bilal, and Hassan share €3600.
The ratio of the amount Amir gets to the amount Bilal gets is 3 : 2.
Hassan gets 1.5 times the amount Bilal gets. Work out how much money Bilal gets.

(Total for question 13 is 4 marks)

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Q14 Hashim and Ajmal have a total of 300 stickers.

The ratio of the number of stickers Hashim has to the ratio of the number of stickers Ajmal has is in the ratio 7: 3

Hashim gives Ajmal some stickers.

The ratio of the number of stickers Hashim has to the ratio of the number of stickers Ajmal has is now in the ratio 8: 7

Work out how many stickers Hashim gives to Ajmal.

You must show all your working.

(Total for question 14 is 4 marks)

Q15. A shop sells small chocolate bars and large chocolate bars.

There are

Small chocolate bars are sold in packs of 2

Large chocolate bars are sold in packs of 10 On

one day

the number of packs of small chocolate bars sold: the number of packs of large chocolate bars sold = 5: 4

A total of 200 chocolate bars were sold. Work out the number of small chocolate bars sold.

(Total for question 15 is 4 marks)

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Q16 Rayan has 320 counters.
The counters are either blue, purple, orange, or white.
15% of the counters are blue. $\frac{2}{5}$ of the counters are purple.
The ratio of orange counters to white counters is 3 : 1. Work out the number of orange counters Rayan has.

(Total for question 16 is 4 marks)

Q17. Sara bakes 200 cakes.

She bakes only chocolate cakes, vanilla cakes, banana cakes, and strawberry cakes. 25% of the cakes are chocolate cakes.

$\frac{2}{5}$ of the cakes are vanilla cakes.

The ratio of banana cakes to strawberry cakes is 2: 3.

Work out the number of strawberry cakes Sara has.

(Total for question 17 is 4 marks)

Q18. Each month Zara earns £2400 after tax.

Zara saves 25% of her salary and spends the rest.

The amount Zara spends on rent: other expenses = 3: 7. Work out how much Zara spends on rent.

(Total for question 18 is 4 marks)

Q19. There are only blue counters and yellow counters in a bag.

The ratio of blue counters: yellow counters = 4: 5.

There are 32 blue counters in the bag.

Work out the total number of counters in the bag.

(Total for question 19 is 2 marks)

Q20. Ayesha and Hira have some stamps in the ratio 3: 7.

Hira has 28 more stamps than Ayesha.

Work out the number of stamps Ayesha has.

(Total for question 20 is 3 marks)

Q21. In a bag there are counters.
The counters are all either green, purple, or orange.
The number of green counters: purple counters: orange counters = 3: 4: 7.
The number of orange counters is 21 more than the number of purple counters.
Work out the total number of counters in the bag.

(Total for question 21 is 3 marks)

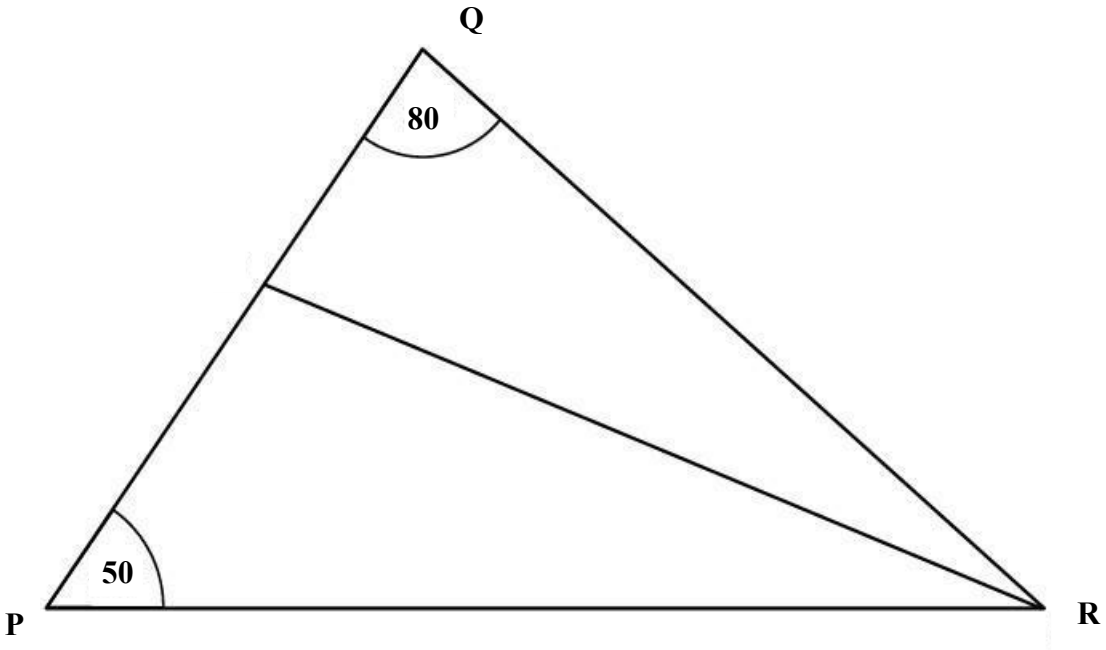
Q22. Aisha has some coins with a total value of 190 pence.
She has only 2-pence coins and 5-pence coins.
The ratio of the number of 2-pence coins to the number of 5-pence coins is 2: 3. Work out how many 5-pence coins Aisha has.

(Total for question 22 is 4 marks)

Q23. Markers and erasers are sold in a shop.
6 erasers cost £180.
The ratio of the cost of a marker to the cost of an eraser is 4: 3.
Work out the cost of 4 markers.

(Total for question 23 is 4 marks)

Q24. The diagram shows triangle PQR.



PSQ is a straight line. the size of angle QRS: the

size of angle PRS = 2: 3

Work out the size of angle PSR.

(Total for question 24 is 4 marks)