Name: _____

ASM Tuition Academy

WRITING AND SIMPLIFYING 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.

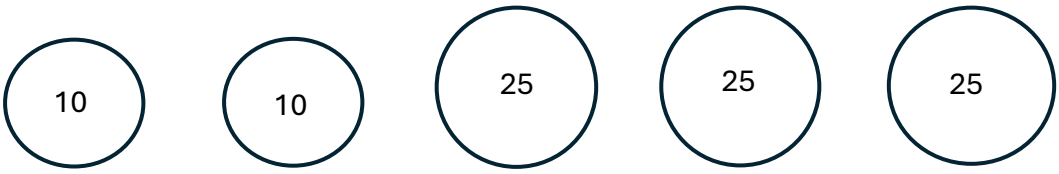
Q1. Write down the ratio of 420 cm to 35 cm.
Give your answer in its simplest form.

(Total for question 1 is 2 marks)

Q2. Write down the ratio of 360 kg to 15 kg.
Give your answer in its simplest form.

(Total for question 2 is 2 marks)

Q3. Sara has the following coins:



Write down the ratio of the value of Sara's 10p coins to the value of Sara's 25p coins.

(Total for question 3 is 2 marks)

Q4. (a) Write the ratio 45: 30 in its simplest form.

(b) $\frac{1}{4}$ of people in a class are left-handed.

Write the ratio of left-handed people to right-handed people.

(Total for question 4 is 2 marks)

Q5. (a) Write the ratio 28: 42 in its simplest form.

(b) There are green shapes and yellow shapes in a box. $\frac{3}{5}$ of the shapes are green.

Write the ratio of green shapes to yellow shapes.

(Total for question 5 is 2 marks)

Q6. (a) Write the ratio 72: 24 in its simplest form.

(b) $\frac{2}{5}$ of chocolates in a box are dark chocolate, the rest are milk chocolate.

Write the ratio of dark chocolates to milk chocolates.

(Total for question 6 is 2 marks)

Q7. (a) Write the ratio 18: 54 in its simplest form.

(b) In March, it snowed on $\frac{1}{3}$ of the days.

Write the ratio of the days it snowed to the number of days it did not snow.

(Total for question 7 is 2 marks)

Q8. Write the ratio 9: 3 in the form n: 1.

(Total for question 8 is 1 mark)

Q9. Write the ratio 8: 20 in the form 1: n.

(Total for question 9 is 1 mark)

Q10. There are some balls in a box.
$\frac{1}{5}$ of the balls are green.
The rest of the balls are yellow.
Write the ratio of the number of green balls to the number of yellow balls.
Give your answer in the form 1: n.

(Total for question 10 is 2 marks)

Q11. There are only green, purple, and orange marbles in a jar.
There are twice as many green marbles as orange marbles.
There are four times as many purple marbles as orange marbles.
Write down the ratio of green marbles to purple marbles to orange marbles.

(Total for question 12 is 2 marks)

Q12. There are only blue pencils, white pencils, and pink pencils in a box.
There are three times as many blue pencils as white pencils.
There are twice as many pink pencils as blue pencils.
Write down the ratio of blue pencils to white pencils to pink pencils.

(Total for question 13 is 2 marks)

Q13. Ali, Sara, and Hassan played a game.
Ali scored three times as many points as Sara.
Hassan scored half as many points as Ali.
Write down the ratio of Ali's points to Sara's points to Hassan's points.

(Total for question 13 is 2 marks)

Q14. There are 90 people in the school canteen.
Half of the people are Year 11 students. The number of Year 11 students is three times the number of Year 10 students.
The rest are Year 9 students.
The number of Year 9 students: the number of Year 10 students = n: 1.
Work out the value of n. Show your work.

(Total for question 14 is 2 marks)

Q15. In a jar there are green, purple, and orange candies.
The number of purple candies is four times the number of green candies.
The number of orange candies is half the number of purple candies.
Write down the ratio of green candies to purple candies to orange candies.
Give your answer in the form a : b : c, where a, b, and c are whole numbers.

(Total for question 15 is 2 marks)

Q16. In a jar there are green, pink, and white candies.
The number of green candies is three times the number of white candies.
The number of pink candies is half the number of white candies.
Find the percentage of candies that are white.

(Total for question 16 is 2 marks)
