Maths Coaching Centres (MCC)

Paper class specialist

MCC Sample Paper - Year 5

Student Name : …………………………………………...

Start time : …………………………… **Finish time :** …………………………

__Paper Analysis__

Student's score : ………………. out of 50 **Percentage :** ………………%

Student's Rank : …………. out of………... **High score :** ………………..%

Student's Standardised score: …………… **Average score :** ………………%

Standardizsed Score: It is very important to understand that the standardised score is a one of the best indicators of a child's performance. A standardised score of **100** on this exam indicates an average performance.

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Questions 1 to 5 choose a correct answer.

1. **Work out 1368 ÷ 24**

    a) 67   b) 47   c) 57   d)48

2. **Which of the following numbers has the largest value?**

    a) $\frac{3}{4}$ b) $\frac{1}{4}$ c) $\frac{3}{8}$ d) $\frac{4}{5}$

3. **What is 0.69 as a percentage**

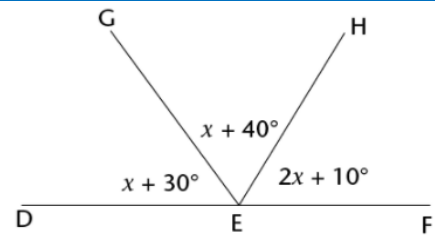 a)0.69%   b) 6.9%   c) 69%   d) 0.0069%

4. **Thirteen pens cost £5.20. How much would eight pens cost?**

    a) £2.60   b) £3.60   c) £4.20   d)£3.20

5. **Which numbers in the list are factors of 45?**

    a) 1,3,5,15   b) 1,3,8,45   c)3,5,15,30   d)1,10,15,,45

6. **Work out x value**

7. **Write down the next two number in following sequences**

    a) -9 , -7 , -5 , -3 , -1 , ………
    b) 1 , 4 , 16 , 25 , …………
    c) 0.25 , 0.5 , 0.75 , 1 , …………..

8. **Fill in the missing numbers:**

    a) $\frac{1}{2}$ of 40 = $\frac{1}{4}$ of ……………..

    b) $\frac{3}{4}$ of 200 = $\frac{1}{2}$ of ……………..

    c) $\frac{2}{3}$ of 180 = $\frac{1}{3}$ of ……………..

9. **Write in the missing number**

   a) 0.548 = 0.5 + 0.04+ ……………………..

   b) 0.8521=……… +0.05+………+0.002 +……………

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10. **Write the three prime numbers which multiply to make 385:………………………**

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11. **Oliver starts with 100 and subtracts 11 each time. The first four numbers in his sequence are: 100, 89, 78, 67… If he continues in this way, what will be the first negative number in his sequence? …………………………………………………**

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12. **8 chocolate bars cost £3.20.**

   a) **Find the cost of one chocolate bar ………………………………………………**

   b) **Find the cost of 15 chocolate bars ………………………………………………**

   c) **How many chocolate bars can you buy for £9.60………………………………**

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13. **A rectangle has an area of 120cm² and a perimeter of 46cm. What is the length of the longest side of the rectangle? …………………………………………………**

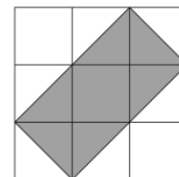
14.
   a) **What is 66% of a kg? ………………………………………………**
   b) **What percent of 60 is 45? ………………………………………………**

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15. **What fraction of the large square below is not shaded**
   …………………………………………………

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16. **1800 people registered for the Marathon but only 1080 runners actually ran. What percentage of the registered people did not run the Marathon? ……………**

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17. **Alan wants to buy as many chocolates as he can afford with £ 10 note. Each chocolate costs 80p.How much change will he receive? …………………………**

18. Uma thinks of a number. She says, "Add 4 to my number and then multiply the result by 6. The answer is 648." What is Uma's number? ……………………………

19. It takes 11 men 10 hours to dig a trench. How many hours would it take 5 people to dig the same trench……………………………………………………………

20. Three friends share out Pokemon Cards depending on how much the each paid. The ratio for David, Emiley and Angela is 3:7:5. If Angela received 120 cards then how much did all three of them have in total? ……………………………

21. Sam cuts out a piece of card into a rectangle. The rectangle is twice as long as it is wide. The area of the rectangle is 128cm^2.What is the perimeter of the rectangle? …………………………………………………………………

22. I am unaware that my watch stopped at 7.15 a.m. I check my watch on the way to the station. The correct time then is 7.30 a.m. Thinking I am early, I then buy a cup of coffee taking 10 minutes. My train is due to depart at 7.35 a.m. How late does the train need to be in order for me to catch it? ……………………………

23.
   a) Write the time as a 12-hour time ……………………
   b) Write 'twenty five minutes to nine' as a 12-hour clock time……………………………………
   c) Write 'ten minutes past seven' as a 12-hour clock time……………………

24. £ 40 000 in £ 50 notes weighs about 1.2Kg. How much does one £ 50 note weigh? Give answer in grams…………………………………………

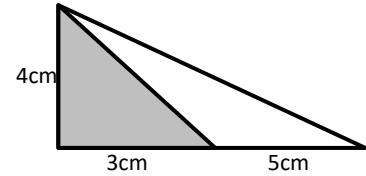25. Select the correct one
   a) A triangle can have 2 acute angles. (True/ False)
   b) A triangle can have 2 obtuse angles. (True/ False)
   c) A triangle can have 2 parallel sides. (True/ False)
   d) A triangle can have 2 perpendicular sides. (True/ False)

26. A right-angled triangle has the dimensions as shown. What is the area of the unshaded region? ……………………………….

4cm

3cm   5cm

27. Find the missing side of scalene triangles from the information given below

   a) Perimeter = 24cm, Lengthof side 1= 7cm , Length of side 2 = 8cm ……………

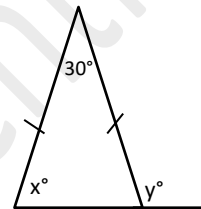   b) Perimeter =26.8m, Lengthof side 1=9.6m , Length of side 2 =10.7m……………

28.

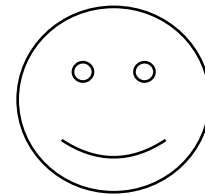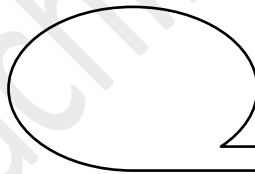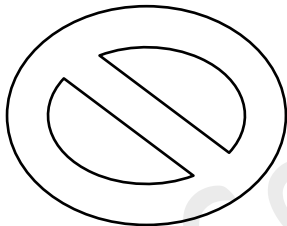   a) Write down the name that is given to this type of triangle.

      ……………………………………….

   b) Calculate the size of the angle x and y?

      ……………………………………….
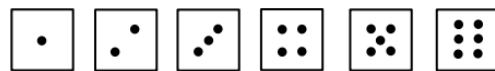
30°

x°   y°

29. Draw the lines of symmetry on these shapes. Some may have none or more than one.

30. How many of the six faces of a dice have fewer than three lines of symmetry?

   …………………………………………..

31. Daniel is planting some grass seeds. The garden has an area of 165m^2 and each packet seed has enough for 14m^2 and each packet cost £3.50. How much has he spend? ………………………………….………………………………………………..

32. William starts running from the start line at 10m/s. Two seconds later James starts running from the start line at 12m/s.

   a) How long after William starts running does James catch up with him?

      …………………………………………..

   b) How far are they both from the start line when James catches up with william? …………………………………………..

33. The table shows the size of population for five villages.

Village	Population
A	1896
B	15432
C	6785
D	4387
E	19456

a) Write the population of B in words

…………………………………………………………………………………..

b) Write the population of D correct to the nearest 100……………………………

c) Write the population of E to the nearest 1000………………………………

d) How many more people live in B than C…………………………………..

34. Sarah is making a necklace of beads, using Purple and White beads in the ratio 3

: 4. She has 63 purple beads .

a) How many white beads will she need? ………………………………..

b) How many beads will she use altogether? ………………………………..

35. A box of biscuits contains 36 biscuits. 20 biscuits have foil wrappers. 15 are

chocolate biscuits with foil wrappers. If 9 are not chocolate and do not have a foil

wrapper, then how many chocolate biscuits are there? ………………………

36. Party charge (C) for n people is given by the formula: C = 4n +50

a) What is the party charge for 25 people? …………………………………………

b) What is the average cost per person for a party of 25 people? …………………

37. The symbol § represents a mathematical rule. The rule for § is "add the two

numbers and then multiply their sum by the first number".

For example, 3 § 4 = (3 + 4) × 3 = 7 × 3 = 21 .Work out:

a) 4 § 5 = ………………………………….

b) $\frac{1}{4}$ § 3 = ………………………………….

c) $\frac{1}{2}$ § $\frac{1}{3}$ =………………………………….

38. Aila was born on 15 July 2003 and her mother, Jasmine, was born on the same date 29 years earlier.

a) What is Aila's age, on 1st January, in 2022? …………………………………….

b) In which year, on 1st January, will Jasmine's age be three times Aila's age? ……………………………………………………………

39. In the long jump competition, children recorded their results in a bar chart

a) Diya jumped 1.8m. Draw the bar to represent Diya's jump.
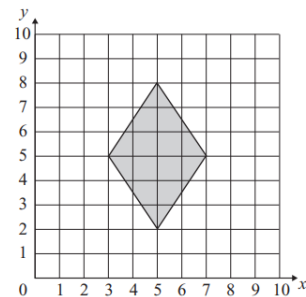
b) By how many centimetres did Victoria beat Jasmine ………………………………………
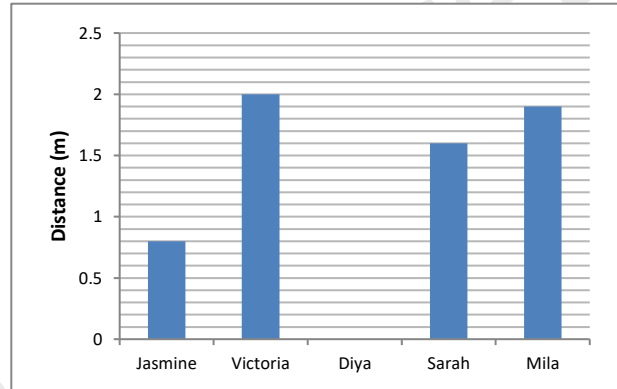
c) What is the average distance children jumped ………………………………………

d) Who is jumped long distance? ………………………………………

40. A matchbox measures 1 cm high, 3cm wide and 5 cm long. What is the maximum number of matchboxes that could be fitted into a box measuring 18 cm by 25 cm by 10cm? ………………………………………………………………………………
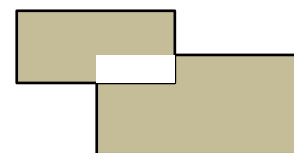
**41.** Write the coordinates of corners of rhombus ………………………………………………………

42. The shape below is made from two overlapping rectangles. One rectangle measures 6 cm by 3cm. The other measures 10 cm by 4 cm. Given that the area of the section shaded in the small rectangle is 12 cm², work out the area of the section shaded in the large rectangle. ………………………………………………………………………

43. How many equilateral triangles can be found in the diagram? ………………………………………………………
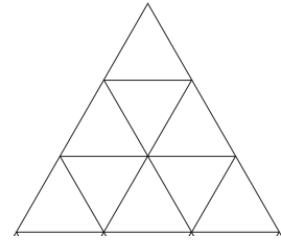
44. Sona makes a fruit salad using bananas, oranges and apples. For every one banana, she uses 2 oranges and 3 apples. Sona uses 24 fruits. How many oranges does she use? ……………………………………………………………………………

45. Four gamblers had £234between them. Harry had £20 more than James ,George had £53 more than James and Sam had £71 more than James. How much did each of them have? ………………………………………………………………………

46. If x=3, y=7 and z=-2, solve these equations
    a) 3x +2y = …………………………
    b) 2(x+y+z) = …………………………
    c) 3x + y -z = …………………………
    d) x(y+z)= …………………………

47. David has recorded the shoe size of every boyin his class. His results are shown in the table below. David says "The mode is 15". Anna says "The mode is 4". Who is correct? Give a reason for your answer?
    ……………………………………………………………………………………………………

Shoe size	3	4	5	6
No of people	4	15	6	2

48. Use below conversions to convert the mass of 56 ounces in to kilograms
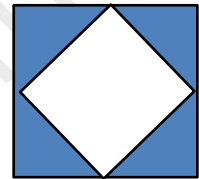   16 ounces =1 pound   2.2 pounds = 1kg
    …………………………………………………………………………

49.

a) What is the direction from B to C. ………………….………

b) What is the direction from A to C. ……………….………….

c) What is the direction from A to B. ……………….………….

d) What is the direction from C to B. ……………….…………
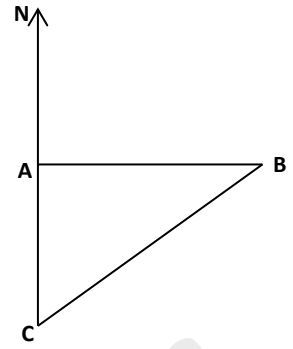
50. The diagram shows two squares. The larger square has perimeter 32cm. What is the area of the smaller, white square? …………….…………….