

1) What is the product of the five smallest positive integers?

2) $y^2 + y^3 = y^3 + y^3$
What is the value of y ?

A	1
B	2
C	3
D	4

3) Rodney is on level T of a housing estate.
He takes the lift up three levels and then goes down eight levels.
He is now on the level 3.
What is the value of T ?

4) What is the missing number in the sequence below?

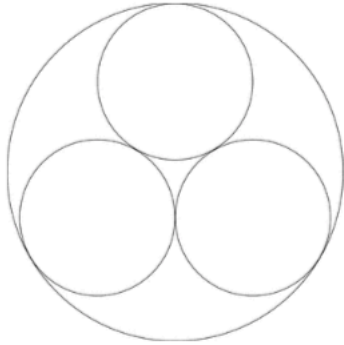
0.011 0.023 ? 0.047 0.059

5) What is the value of X on the number line below?



6) Bob has three sons and four daughters.
Each of Bob's sons has two daughters and three sons.
Each of Bob's daughters has four sons and two daughters.
How many grandchildren does Bob have?

- 7) The figure below consists of three small circles inside a large circle.
The area of each small circle is 25% of the area of the large circle.
What is the ratio of the total area of the three small circles to the area of the large circle?
Write your answer as a ratio in its lowest terms.



- 8) What is the product of 654 and 23?

- 9) 6 workers take three hours to build two walls.
How long would it take 3 workers to build three walls?

- 10) Rob takes a morning flight to New York from London that departs at the time shown on the clock below.
The time in New York is 6 hours behind the time in London.
The flight takes 6.5 hours.
What will the time be in New York when the plane lands?



- 11) Figure 1 below consists of a square and an equilateral triangle.
The square has a width of 6 cm and Figure 1 has a height of 10 cm.
What is the total area of Figure 1?

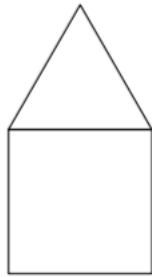


Figure 1

- 12) James bought three sweets and four drinks.
Each sweet cost 45 pence. Each drink cost 55 pence.
James paid with a £20 note.
How much change did he receive?

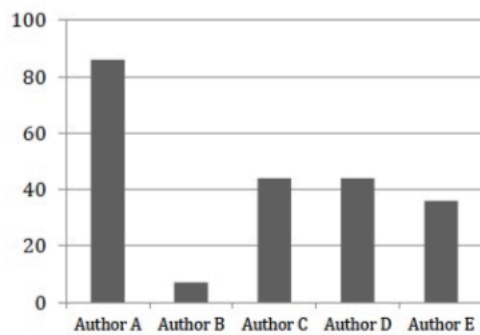
13) What is 18% of 300?

14) Five pegs are drilled into a wooden board and an elastic band is stretched around them so that it touches every peg.

Which of the following could not be the shape formed by the elastic band?

A	triangle
B	pentagon
C	circle
D	square

15) The chart below shows the number of days it takes different authors to write a book. If all the authors write for six months without interruption, which author would produce the most books?



- 16) Tim has a debt of £175,000.
He wins a lottery prize of £300,000.
He must pay 25% tax on his prize.
He then pays off his full debt.
How much money does Tim have left?

- 17) A regular hexagon and a regular pentagon have the same perimeter.
The hexagon has a side length of 15 cm.
What is the side length of the pentagon?

- 18) Kim fills a box with books.
The box has dimensions of 1 m x 0.5 m x 0.2 m.
Each book has dimensions of 20 cm x 10 cm x 5 cm.
How many books can Kim fit in the box?

19) Greg ordered two identical pizzas. He ate half of one pizza and one third of the other pizza.
What fraction of the total amount of pizza was left over?

20) How many lines of symmetry does the letter 'D' have?
