

**Question 1**

A Cadbury truck fully laden is 2964 kg. After dropping off half of its load of chocolate it weighs 2712 kg. What was the total weight of the chocolate in the truck?

**Question 2**

Carson is attending a school orchestra concert. He sees his maths teacher seated 15 metres ahead of him and his science teacher seated 8 metres to his right. How far apart are the two teachers?

**Question 3**

The product of 3 brothers' ages is 175. Two are twins. How old is the other one? (You may assume all ages are integers)

**Question 4**

A school bus travels from the railway station to QMC. There are 4 children in the bus. And each child has a backpack. There are 4 teddy bears sitting in each backpack. All these teddy bears have 4 legs, with 4 toes at each leg. How many toes are on the bus?

**Question 5**

In a fishing Contest I saw a salmon hanging that has just been weighed. I asked the fisherman “how much does it weigh?” He replied curiously, “It weighs 3 fifths of its weight, and 4 fifths of a kilogram.”

What was the weight of the salmon?

**Question 6**

What is the smallest integer whose digits total 20?

**Question 7**

A stock dam has 3 pipes to fill it with water.

Pipe 1 can fill the dam in 12 hours, pipe 2 can fill the dam in 6 hours and pipe 3 can fill the dam in 4 hours.

If all 3 pipes are filling the dam, how long will it take to fill?

**Question 8**

1, 16, 81, 256, what's next?

**Question 9**

I have three times as many cows as I have hens, and twice as many hens as dogs. If all together they have 96 legs, how many cows do I have?

**Question 10**

A kite has diagonals of 40cm and 12cm calculate its area.

**Question 11**

A virus affects 1 computer, each time it strikes every infected computer affects 10 more. How many times must it strike for at least 10 million computers to be affected?

**Question 12**

A set of football matches is to be organised in a "round-robin" fashion, i.e., every participating team plays a match against every other team once and only once.

If 105 matches are played in total, how many teams participated?

**Question 13**

I have a balance scale and an unlimited number of 3 kg, 13 kg and 23 kg weights.  
What is the largest kg weight that I cannot measure accurately?

**Question 14**

A line has the endpoints K(6, 7) and L(6, 3). Find the coordinates of its midpoint M

**Question 15**

Which 4 consecutive integers total negative 6?

**Question 16**

After 12 cricket matches my batting average is 32. What will I need to score in my next game to raise my average to 35?

**Question 17**

How many degrees are there between NW and SSE on a compass?

**Question 18**

A handball court is twice as long as it is wide. If the area is  $800\text{m}^2$  find the perimeter of the handball court?

**Question 19**

25 fence posts are required for a fence 72m long.  
How many posts are needed for a fence 30m long?

**Question 20**

A right angled triangle has angles in the ratio 2 : 3 : 5.  
Find the smallest angle?

**Question 21**

What number is 60 more than a quarter of itself?

**Question 22**

If it takes 6 painters 15 days to paint a house, how long would it take 10 painters?

**Question 23**

List all the numbers less than 100 with exactly three factors.

**Question 24**

What is the smallest number that gives a remainder of 1 when divided by 2,3,4,5, and 6?

**Question 25**

If 125 small cubes are glued together to make a large cube. How many of the original 125 cubes can still be seen?

**Question 26**

A conservationist studying the effects of rats on an island bird sanctuary needs to estimate the rat population. She captures 50 rats, tags them and lets them go. One week later she captures 100 rats and finds that five of them have been tagged. She is now able to estimate the rat population. What is her estimate?