



CTSC MATHS THINKER



Grade 7 - Riddles

1. You are given 3 positive numbers. You can add these numbers and multiply them together. The result you get will be the same. Which are the numbers?
2. X is an odd number. Take an alphabet away from X and it becomes even. Which is that number?
3. Muzi was asked to paint the number of plates on 100 apartments which means he will have to paint numbers 1 through 100. Can you figure out the number of times he will have to paint the number 8?
4. I am a three-digit number. My second digit is 4 times bigger than the third digit. My first digit is 3 less than my second digit. Who am I?
5. You are given a telephone and asked to multiply all the numbers on the device's number pad. What will be the answer?
6. Jane-Claire tosses a coin 10 times and it landed in the heads up position all ten times. So what are the possible chances for her to toss it up again and get landed in heads up position?
7. It takes 12 men 12 hours to construct a wall. Then how long will it take for 6 men to complete the same wall?
8. Jamey and Tasneem live in different parts of the city but study in the same high school. Jamey left for school 10 minutes before Tasneem started and they happened to meet at a park. At the time of their meeting, who was closer to the school?
9. Innocent weighs half as much as Thembi and Bafo weigh 3 times the weight of Innocent. Their total weight is 720 kg. Can you figure out the individual weights of each man?
10. Mary has 7 daughters and each of them has a brother. Can you figure out the total number of kids Mary have?
11. X is a three-digit number. The tens digit is 5 more than the ones digit. The hundreds digit is 8 less than the tens digit. What is X?
12. Dumisa was asked how old he was. His reply was like this "In a period of 2 years my age will be twice my age when you asked this five years ago" How old is he?
13. Mpho had two ropes with her and both these ropes need exactly 1 hour in order to get burnt from 1 end to the other end. There is no option to cut the rope. So what is the possibility that she can burn the 2 ropes in just 45 minutes? Solve this.
14. Akash saw some apples in the kitchen. He thought to make apple tart with these apples and 4 apples make are needed to make one apple tart. There were 16 apples in the kitchen. What is the maximum possible number of apple tarts he can make out of them?

15. At the time of shipping, Nadine can place 10 small boxes or 8 large boxes into a carton. A total of 96 boxes were sent in one shipment. The number of small boxes was less than large boxes. What is the total number of cartons she shipped?

MEMORANDUM

- 1, 2 and 3
- Seven (Seven-S=Even)
- 20 times. (8, 18, 28, 38, 48, 58, 68, 78, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 98)
- 141
- Zero (The number pad contains number 0. When you multiply any number by zero, the answer will be zero).
- She has a 50 percent chance to toss the coin and see the heads up position. This is because the coin toss is not dependent on the first 10 tosses.
- It takes no time! There is no need of constructing it again as the job is already done.
- They are both at the same distance from school as they met in the same place.
- Thembi weighs twice the weight of Innocent, and Bafo weighs three times of the same. So you can divide their total weight by 6 to get Innocent's weight

$$X + 2x + 3x = 720$$

By dividing 720 by 6, we can understand that Innocent weighs 120 kg. Considering this value,

Thembi weighs 240 kg and Bafo weighs 360 kg.

- 8 kids because the sisters have just one brother in common.

- Number 194.

- Let Dumisa's age be X Years

$$X+2=2(X-5)$$

$$X+2=2X-10$$

$$X=12$$

- Light up both sides of the first rope with fire so that it starts burning from both ends and fire up the second rope on one side only. In half an hour, the first rope will get completely burnt and the second rope will be burnt only half. At this particular time, you have to light up the second rope from the other side. So rest of the rope gets burnt in 15 minutes. This makes it a total of 45 minutes for two ropes to burn entirely.
- He can make 5. First he can make 4 apple tarts with those 16 apples. When he eats those 4 apple tarts, he will get 4 more apples and he can make one more apple tart with it.

- Answer is 11 cartons

4 small boxes ($4 \times 10 = 40$ boxes)

7 large boxes ($7 \times 8 = 56$ boxes)

So 96 boxes and 11 total cartons