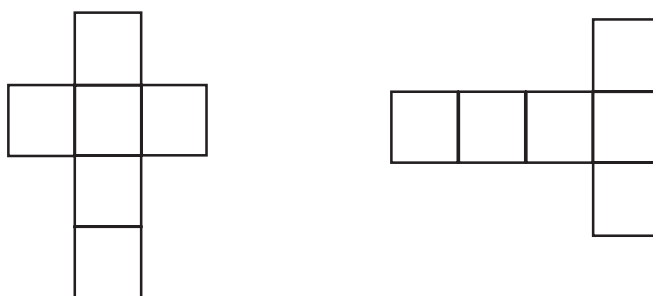


3. No, because one pair of opposite faces will have 1 and 4 on them whose total is not 7, and another pair of opposite faces will have 3 and 6 on them whose total is also not 7.

4. Three faces



5. (a) (ii) (b) (iii) (c) (iv) (d) (i)

BRAIN-TEASERS

1. Solve the number riddles:

- (i) Tell me who I am! Who I am!
 Take away from me the number eight,
 Divide further by a dozen to come up with
 A full team for a game of cricket!
- (ii) Add four to six times a number,
 To get exactly sixty four!
 Perfect credit is yours to ask for
 If you instantly tell the score!

2. Solve the teasers:

- (i) There was in the forest an old Peepal tree
 The grand tree had branches ten and three
 On each branch there lived birds fourteen
 Sparrows brown, crows black and parrots green!
 Twice as many as the parrots were the crows
 And twice as many as the crows were the sparrows!
 We wonder how many birds of each kind
 Aren't you going to help us find?



- (ii) I have some five-rupee coins and some two-rupee coins. The number of two-rupee coins is twice the number of five-rupee coins. The total money I have is 108 rupees. So how many five-rupee coins do I have? And how many two-rupee coins?
3. I have 2 vats each containing 2 mats. 2 cats sat on each of the mats. Each cat wore 2 funny old hats. On each hat lay 2 thin rats. On each rat perched 2 black bats. How many things are in my vats?
 4. Twenty-seven small cubes are glued together to make a big cube. The exterior of the big cube is painted yellow in colour. How many among each of the 27 small cubes would have been painted yellow on
 - (i) only one of its faces?
 - (ii) two of its faces?
 - (iii) three of its faces?
 5. Rahul wanted to find the height of a tree in his garden. He checked the ratio of his height to his shadow's length. It was 4:1. He then measured the shadow of the tree. It was 15 feet. So what was the height of the tree?
 6. A woodcutter took 12 minutes to make 3 pieces of a block of wood. How much time would be needed to make 5 such pieces?
 7. A cloth shrinks 0.5% when washed. What fraction is this?
 8. Smita's mother is 34 years old. Two years from now mother's age will be 4 times Smita's present age. What is Smita's present age?
 9. Maya, Madhura and Mohsina are friends studying in the same class. In a class test in geography, Maya got 16 out of 25. Madhura got 20. Their average score was 19. How much did Mohsina score?

Answers

1. (i) 140 (ii) 10
2. (i) Sparrows: 104, crows: 52, Parrots: 26
(ii) Number of 5 Rupee coins = 12, Number of 2 Rupee coins = 24
3. 124 4. (i) 6 (ii) 10 (iii) 8 5. 60 feet
6. 24 minutes 7. $\frac{1}{200}$ 8. 7 years 9. 21