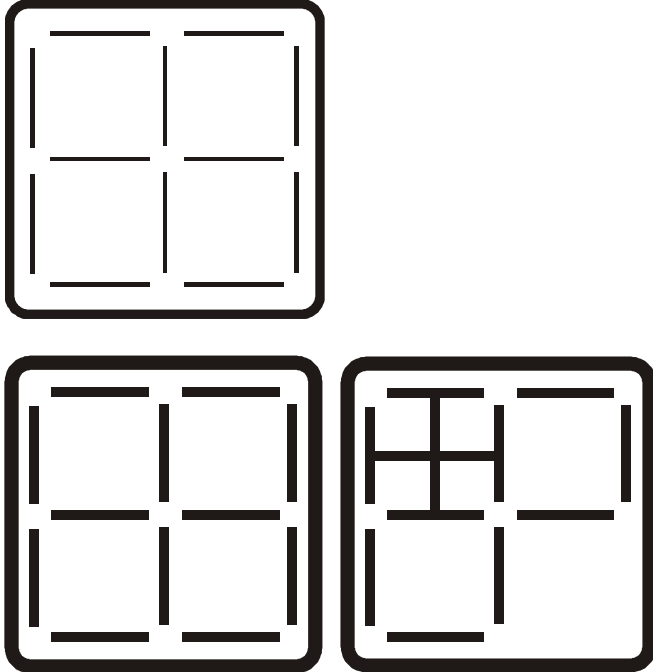


Section -A

Make the following shape using 12 toothpicks

Now, move only 2 toothpicks, and make a figure with 7 squares.



In this puzzle the assumption is that all the squares have to be same size, but it doesn't say that anywhere in the instructions. Don't jump to conclusions!

Test your reaction time

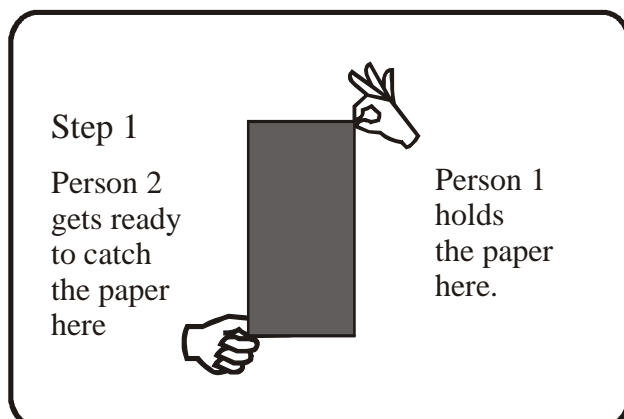
Work with a partner.

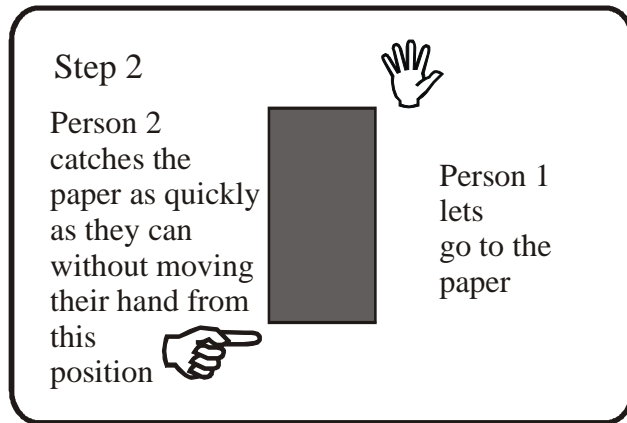
One of you holds the piece of paper at the top. The other gets ready to catch the paper by holding their hand at the level of the bottom of the paper.

The person holding the paper lets go and the catcher has to catch the paper. Can you catch the paper before it falls through your fingers? Make a mark on the paper where you catch it. The quicker your reaction time, the closer to the bottom of the paper the mark will be. Compare it with your partner's reaction time, the closer to the bottom of the paper the mark will be. Compare it with your partner's reaction time.

Is there anything you can do to increase your reaction time?

If you can't catch the paper, why do you think this is?





Section -B [Mathematics]

1. The product of the two integers is -300 . If one integer is 25 , then other integer is
 (a) -12 (b) -11 (c) -13 (d) -14

2. $\frac{2}{3}$ of a number is less than the original number by 10 . The original number is
 (a) 30 (b) 60 (c) 36 (d) 45

3. Identify the like terms $2xy, yz, 3x, \frac{yz}{2}$
 (a) yz and $\frac{1}{2}yz$ (b) $yz, 3x$ (c) $3x, \frac{1}{2}yz$ (d) $2xy, yz$

4. If $\frac{x-1}{x+1} = \frac{7}{9}$, then the value of x is
 (a) 6 (b) 7 (c) 8 (d) 10

5. $\left[\left\{ \left(-\frac{1}{2} \right)^2 \right\}^{-2} \right]^{-1} = ?$
 (a) $\frac{1}{16}$ (b) 16 (c) $-\frac{1}{16}$ (d) -16

6. A football is bought for Rs. 120 and sold for Rs. 105 . The loss percent is
 (a) $12\frac{1}{2}\%$ (b) $14\frac{2}{7}\%$ (c) $16\frac{2}{3}\%$ (d) None of these

7. The ages of A and B are in the ratio 5 : 3 after 6 years. Their ages will be in the ratio 7 : 5, the present age of A is

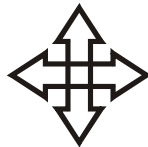
- (a) 5 years (b) 10 years (c) 15 years (d) 20 years

8. The angle which is twice its supplement is

- (a) 120° (b) 90° (c) 60° (d) 30°

9. What is the angle of rotation in following figure?

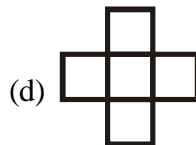
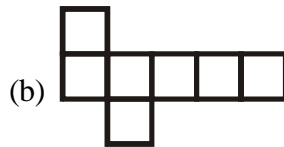
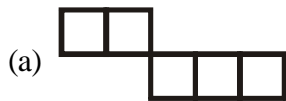
- (a) 60°
(b) 80°
(c) 90°
(d) 110°



10. A gardener plans to plant 630 trees in 21 rows each containing the same number of trees. How many trees will there be in each row?

- (a) 20 (b) 25 (c) 30 (d) 35

11. Which of the following nets represent cube?



12. A square has

- (a) One line of symmetry (b) Two lines of symmetry
(c) Three lines of symmetry (d) Four lines of symmetry

13. The diameter of circle is 14 cm. What is the circumference of the circle?

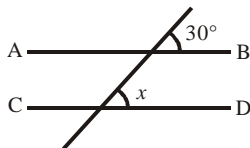
- (a) 15 cm (b) 42 cm (c) 48 cm (d) 44 cm

14. If Rs. 420 is divided between A and B in the ratio 3 : 4, then A's share is

- (a) Rs. 180 (b) Rs. 240 (c) Rs. 270 (d) Rs. 210

15. If $AB \parallel CD$ and $\angle M$ is a transversal. The value of x is

- (a) 60°
- (b) 90°
- (c) 30°
- (d) 65°



Section C - [Mental Ability]

16. When Anuj saw Manish, he recalled, "He is the son of the father of my daughter." Who is manish?

- (a) Brother-in-law (b) Brother
- (c) Nephew (d) Uncle

17. Choose the correct alternatives?

Ocean : Water :: Glacier : ?

- (a) Refrigerato (b) Ice (c) Mountain (d) Cave

18. Problem Figure



- (a)
- (b)
- (c)
- (d)

19. Four words from the given five formed a group. One does not belong the group. Choose the word which does not fit in group.

- (a) Crow (b) Duck (c) Snake (d) Whale

20. What will come in blank spaces in the given series?

Z, X, V, T, R, P, N, L, ?

- (a) J, H (b) I, K (c) H, I (d) J, L