

Program Name: Prof Ved's Olympiad Program Grade 7&8

Worksheet Name: MO Grade 7&8 Spatial Reasoning & 3D Visualization

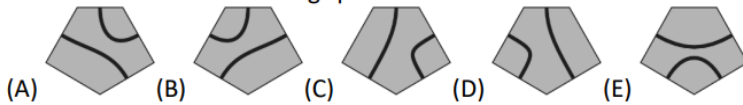
Worksheet 1 Questions

Name: _____

Date: _____

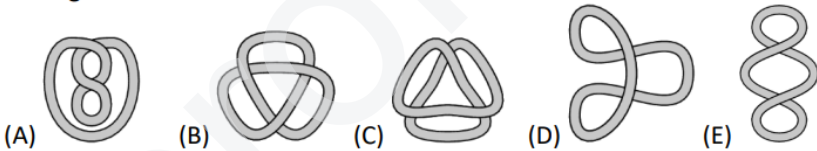
1.

The diagram on the right is made up of five-sided tiles of equal size. Which tile can be inserted in the missing spot so that two closed lines are formed?



2.

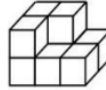
Which figure shown below **cannot** be formed from the rope shown on the right without cutting?



3.

Which of the shapes shown on the right can you put together to form a cuboid?

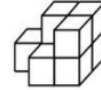
- (A) 1 and 2 (B) 2 and 3 (C) 3 and 4 (D) 1 and 3 (E) 2 and 4



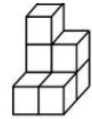
1



2



3



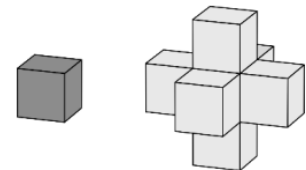
4

4.

Johann has several light and dark cubes. He used them to form the solid shown on the right. He made it by gluing a light cube on each side of a dark cube. Now he wants to glue on dark cubes so that no light areas can be seen from the outside.

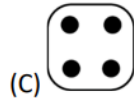
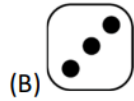
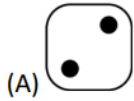
What is the minimum number of dark cubes that he will need?

- (A) 18 (B) 16 (C) 14 (D) 12 (E) 10



5.

Alex rolls three standard dice and gets a total of 8. All three dice show different numbers. What number is definitely not shown on any of the three dice?



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