SMO – SYNERGY MATH OLYMPIAD

GRADE VII – SAMPLE QUESTIONS

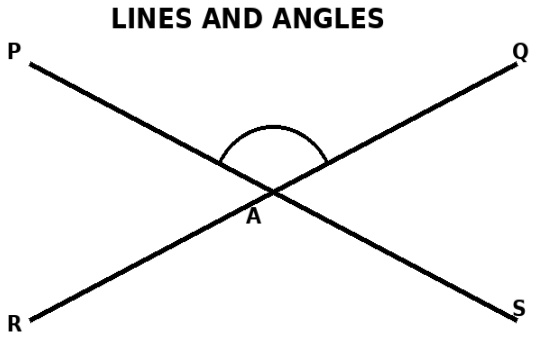
1. In the figure, two lines intersect. If ∠PQS = 110°, what is the measure of the vertically opposite angle ∠RQP?

A. 70°

B. 90°

C. 110°

D. 180°



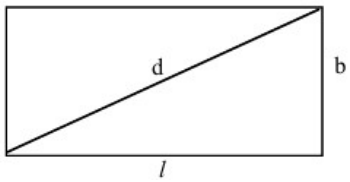
2. If a rectangle has length ‘l’ and breadth ‘b’ and diagonal ‘d’ is, then which of the following relation is correct?

A. $l^2 + b^2 = d^2$

B. $l^2 - d^2 = b^2$

C. $l^2 - b^2 = d^2$

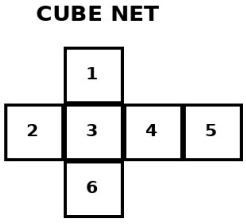
D. $d^2 - b^2 = l^2$



3. The figure is a net of a cube. How many square faces will the folded cube have?

A. 4 B. 5

C. 6 D. 8



4. The value of $\frac{3.6 \times 0.48 \times 2.5}{0.12 \times 0.09 \times 0.5}$ is A. 80 B. 800 C. 8000 D. 80000

5. Which is the greatest number?

A. −3/4 B. −2/3 C. −1/2 D. −5/6

6. Which expression has the same value as $2^3 \times 2^2$?

A. 2^5 B. 4^5 C. 2^6 D. 2^1

7. 9.7 - [8.6 - {7.5 - (6.4 - 5.3 – 3)}] is simplified to

A. 2.5 B. 3.5 C. 4.5 D. 10.5

8. In each of the following questions, an alphabet series is given with one missing term. Choose correct alternative that will continue the same pattern and fill in the blank spaces.

JAK, KBL, LCM, MDN, _____

A. OEP B. NEO C. MEN D. PFQ

9. If A is the smallest five digit number formed by all digits 6, 5, 0, 1, 2 (using each digit only once) and B is the greatest five digit number formed by all digits 0,3, 2, 1, 8 (Using each digit only once). Then find B – A.

A. 59742 B. 75114 C. 72954 D. 96521

10. A man has ` 480 in the denominations of one-rupee notes, five-rupee notes and ten-rupee notes. The number of notes of each denomination is equal. What is the total number of notes that he has? A) 45 B) 60 C) 75 D) 90

KEY

1	2	3	4	5	6	7	8	9	10
C	**A**	**C**	B	**C**	**A**	**D**	**B**	**C**	**D**