NCOF INDIA

National Commerce Olympiad 2012

A True Test Of Your Genius

National Commerce Olympiad Foundation

An NGO For Research & Development Of Commerce Studies

Math VIII:

1. Fresh coconut contains 80% water by weight whereas dry coconut contains 10% water by weight, what is the weight of dry coconut that can be obtained from 20 kg of fresh coconut?
   (a)4kg (b) 4.12kg (c) 4.44kg (d) 434kg

2. Find the smallest number by which 2560 must be divided so that the quotient is a perfect cube.

   (a) 20 (b) 15 (c) 2 (d) 5

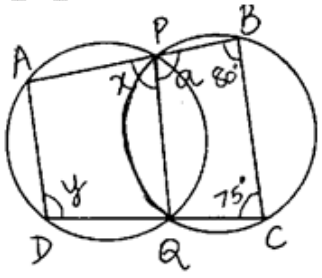
3. The height of a right circular cone is 36cm and the radius of its base is 15cm. Find the curved surface area of the cone?

   (a) 585π (b) 390 π (c) 810 π (d) 615 π

4. Two sides of a parallelogram are 24cm and 32cm. If the altitude corresponding to the longer side of the parallelogram is 21cm, then find the altitude corresponding to the shorter pair of parallel sides.

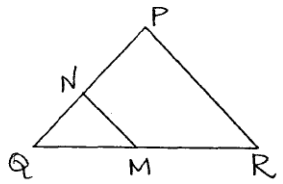
   (a) 14 (b) 28 (c) 32 (d) 42

5. In the given figure 2 circles intersect at points P and Q. Quadrilaterals APQD and PBCQ are inscribed in these circles such that APB and CQD are line segments. If < B = 80° and <D = 75° find **<a, < x, < *y*.**



   (a) 105, 75, 105 (b) 75, 105, 75 (c) 105, 75, 75 (d) 75, 75, 75

6. In the given figure PQR is a triangle where M is a point on QR such that QM =3.5cm and QR =10cm. If MN// RP meets QP at N and QP = 8cm, find QN



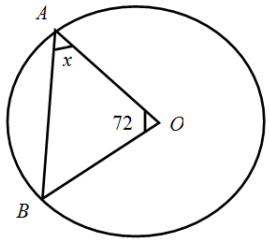
(a) 1.8 (b) 2.8 (c) 3.2 (d) 4.6

7. A train 120m long crosses a pole in 10 seconds. The speed of train is
(a) 14km/hr (b) 60.3km/hr (c) 43.2km/hr (d) none of these

8. 'A' can do a job in 6 days and B can do the same job in 6days. If A and B work together in how many days the job will be finished?
(a) 2 days (b) 3 days (c) 6 days (d) 12 days

9. In the figure below what is the value of x? If 'O' the center of circle?

(a) 34
(b) 44
(c) 64
(d) 54



10. What is the area of an equilateral triangle whose altitude is 6?
(a) 18 (b) $12\sqrt{3}$ (c) $18\sqrt{3}$ (d) $24\sqrt{3}$

Answar key

1.(c)	2.	(d)	3.	(a)	4.	(b)	5.	(a)
6.(b)	7.	(c)	8.	(b)	9.	(d)	10.	(b)