# CET Mathematics - Practice

**Please note – These question are for assisting candidates. The level of questions in the CET can similar or higher. Format of question paper will be similar to that given on the website (used for CET 1 – September, November, and December2011. We welcome contribution of additional questions from candidates / institutes. The questions are within the level of 10th standard of all HS Boards in India.**

| **Maths (Learn from the links given below)** | |
|---|---|
| Units-measures & dimensions - http://chemtutor.com/unit.htm | |
| http://www.ixl.com/math/grade-8 | http://www.mathwords.com/a_to_z.htm |
| http://www.amathsdictionaryforkids.com/ | http://www.101science.com/math.htm |
| helpingwithmath.com | coolmath.com |
| superteacherworksheets.com | mathsdrills.com |

## Arithmetic

1. Which of the following is the smallest? a. 15/16  b. 5/8 c. 3/4  ( b)

2. Which of the following is the largest? a. 24/50 b. 47/100 c. 11/25  ( c )

3. If 40% of a number is 8, find the number. ( 20 )

4. Three fourth of a number is more than two third of the number by 5. Find the number. ( 60 )

5. 4/5 of a certain number is 64. Half of this number will be  a. 32 b. 40 c. 84 ( b )

6. A man is older than his son by 20 years. What will be the age difference after 5 years?  (same )

7. How much is 40 % of 80 greater than 4/5th of 25. ( 12 )

8. 4 men can complete a work in 8 days. How many days will 8 men take to complete the same job ( 4 days )

9. A man puts Rs 2000 in the bank at 6.5% simple interest. Find the maturity amount after 1 year. (Rs  2130)

10. The square root of a number is 12. Find the number.    ( 144 )

11. Subtract 100021 from 10000021. (9900000)

12. What is the Least Common Multiple (LCM) of 9 and 12.   ( 36 )

13. What is the Highest common Factor (HCF) of 8 and 12. ( 4 )

14. What is 24 divided by -6. (-4 )

15. Write the highest fraction in the series : -2/8 , 3/4,  7/12, -4/16 (3/4)

16. Solve for p if 2 x 4 -6 +3 = p  (p = 5)

17. If c/39 = 14/13 find c   (42)

18. Write 11/20 as a percentage. (55%)

## Algebra

1. Solve the simultaneous equation: x + y = 5 and 3x - 2y = 10.  (x = 4, y = 1 )

2. Solve the simultaneous equation: 2x + 3y = 0 and 3x + 4y = 5.   ( x = 15, y = -10)

3. Solve  $4a^2 – 36 = 0$    ( a =3, -3 )

4. Find the value of $3x^2+5x+3$  if x = 5  ( 103 )

5. If v/2 +6 = 10, find v.

6. The sum of two numbers is 15 and their difference is 1. Find the numbers.   ( 7,8 )

7. The average of 2 numbers is 12. One number is 8, find the other. ( 16 )

8. The sum of 3 consecutive numbers is 33. Find the middle number. ( 10 )

9. If 3f + 2 = 8. Find the value of f. ( 2 )

10. If 9 = 3 + 2c. Find c ( 3 )

11. If t + 10 = 15. Find the value of 2t

12. If ( k-6 )/2 = 3, find the value of k  ( 12 )

13. If 10 =  2 ( s+2 ) , find the value of s   ( 3 )

14. If 6 = 3 ( n-6 ) , find the value of n ( 8 )

15. If 2 ( f+2 ) = 10, find the value of f  ( 3 )

16. If 19u – 10u = 18, find the value of u  ( 2 )

17. If 11v – 8v = 12, find the value of v ( 4 )

18. Simplify (9x + 6) – (3x + 2 )

## Geometry

1. Find the area of a sector of a circle with radius 7 cm and arc subtending a central angle of 30deg. $\pi$ = 22/7 ( 12.83 cm2)

2. Find the area of a sector of a circle of radius 6 cm and arc with length 15 cm. ( 45cm2)

3. Find the length of the arc of a circle of radius 8 cm and making a central angle of 60 deg $\pi$=3.142 ( 8.37 )

4. A wire is bent to form a square of area 121 cm2. If this wire is now bent to form a circle, what will be the area of the circle? $\pi$ = 22/7 ( 154 cm2 )

5. In a right angled triangle, sides making right angle are of lengths 8 cm and 6 cm. Find the perimeter and the area of the triangle. ( 24 cm, 24cm2)

6. What is the volume of a rectangular pyramid of base 12m x 5m and height 9m ( 180m3)

7. What is the sum of angles in a triangle? ( 180° )

8. What is the sum of angles in a quadrilateral ? ( 360 ° )

9. Find the area of a circle of diameter 14 cm ( 154 cm2 )

10. S is the mid-point of line RT. If the length of RT is 86 cms, find length of RS. ( 43 cms )

11. What is the circumference of a circle whose radius is 7 cm

12. What is the area of a circle whose diameter is 20 cm

## Trigonometry

1. In a right angled triangle, if tan $\theta$ = ¾, find sin $\theta$ ( 3/5)

2. In a right angled triangle, if cos$\theta$ = 8/10, find sin $\theta$

3. If cos ( 40+x)° = sin 30°, find x. ( 20°)

4. In a right angled triangle of lengths 5, 4 and 3 cms, find sin x, cos x and tan x. ( 3/5,4/5,3/4)

5. What is the value of sin 30, cos 30, tan 45 ( ½, √3/2, 1 )

6. Find the value of sin 30 + cos 60. ( 1 )