

## ped236 List of Questions

*Latex formatted questions may not properly render*

**Q1 Calculate the radius of a circle whose area is given as  $3850\text{cm}^2$**

- ☐ 40cm
- ☐ 35
- ☐ 35m
- ☒ 35cm

**Q2 A cylinder has a radius of 6cm and a height of 4cm. What is the area of the curved surface?**

- ☐  $1056\text{cm}^2$
- ☒  $150.9\text{cm}^2$
- ☐  $159\text{m}^2$
- ☐  $15.9\text{cm}^2$

**Q3 One of these is not conditions for congruency.**

- ☐ SSS
- ☐ SAS
- ☒ AAA
- ☐ AAS

**Q4 Find the surface area of a right circular cone whose height is 7.2cm and slant height is 7.5cm.**

- ☐  $21\text{cm}^2$
- ☐  $2.1\text{cm}^2$
- ☒  $63.4\text{cm}^2$
- ☐  $44.4\text{cm}^2$

**Q5 Calculate the volume of a cone given its length as 10cm and radius 6cm.**

- ☒  $301.7\text{cm}^3$
- ☐  $8\text{cm}^3$
- ☐  $301.7\text{cm}^2$
- ☐  $3000\text{cm}^2$

**Q6 Solve for p in the equation  $4p + 42 = 10p + 12$**

- ☐ 2
- ☐ 15
- ☐ 10
- ☒ 5

**Q7 Solve for k in equation  $11 = 9k$   ?? 16**

- ☐ -3
- ☐ 6
- ☒ 3
- ☐ 9

**Q8 A rectangle is 4times as long as it is wide. If the perimeter of the rectangle is 50cm, find the length of the rectangle.**

- ☐ 5cm
- ☒ 20

- ☐ 20cm
- ☐ 2cm

**Q9** An arc AB subtends an angle of 60° at the centre of a circle of radius 4cm. Calculate the area of the minor sector.

- ☐ 8.4cm
- ☐ 8.4cm<sup>2</sup>
- ☐ 21.2cm<sup>2</sup>
- ☐ 2.52cm<sup>2</sup>

**Q10** The angle of a sector of a circle is 252°. Calculate the radius if the area of the sector is 35.2cm<sup>2</sup>

- ☐ 4cm
- ☐ 13.67cm
- ☐ 7cm
- ☐ 5cm

**Q11** The length of an arc bounding a sector of a circle of radius 3cm is 7cm, calculate the area of the sector.

- ☐ 12cm<sup>2</sup>
- ☐ 10.5
- ☐ 10.5cm<sup>2</sup>
- ☐ 105cm<sup>2</sup>

**Q12** What is the coefficient of  $x^2$  in equation  $-7x^2 + 6x + 10 = 0$

- ☐  $-7x^2$
- ☐ -7
- ☐ 7
- ☐ -1

**Q13** Evaluate  $32.56 \times 9.563$

- ☐ 3114
- ☐ 31.14
- ☐ 311.4
- ☐ 31140

**Q14** What are the angles of an isosceles right angled triangle?

- ☐ 30, 60, 90
- ☐ 60, 60, 60
- ☐ 45, 45, 60
- ☐ 45, 45, 90

**Q15** Evaluate  $30/0.5$

- ☐ 6
- ☐ 60
- ☐ 10
- ☐ 15

**Q16** Simplify  $(625)^{5/4}$

- ☐ 25
- ☐ 125

- ☐ 525
- ☒ 625

**Q17 What is the sum of angles in a triangle?**

- ☐ 360 0
- ☐ 105 0
- ☐ 180
- ☒ 180 0

**Q18 Find the characteristics of 5678.**

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4

**Q19 Round off 16.8077 to two decimal places.**

- ☐ 16.808
- ☐ 16.8
- ☒ 16.81
- ☐ 16.807

**Q20 Approximate 186.75 to 2 significant figures.**

- ☐ 200
- ☒ 190
- ☐ 187
- ☐ 186

**Q21 What is the total surface area of a cuboid of length 5cm, width 6cm and length 12cm?**

- ☐ 360cm<sup>2</sup>
- ☐ 224cm<sup>2</sup>
- ☒ 324cm<sup>2</sup>
- ☐ 162cm<sup>2</sup>

**Q22 What is the total surface area of a cube of side 5cm?**

- ☐ 15.0cm<sup>2</sup>
- ☐ 150
- ☐ 25cm<sup>2</sup>
- ☒ 150cm<sup>2</sup>

**Q23 What is the coefficient of  $x^2$  in equation  $-7x^2 + 6x + 10 = 0$**

- ☐  $-7x^2$
- ☒ -7
- ☐ 7
- ☐ -1

**Q24 The length of an arc bounding a sector of a circle of radius 3cm is 7cm, calculate the area of the sector.**

- ☐ 12cm<sup>2</sup>
- ☐ 10.5
- ☒ 10.5cm<sup>2</sup>

☐ 105cm<sup>2</sup>

**Q25** The angle of a sector of a circle is 2950. Calculate the radius if the area of the sector is 35.2cm<sup>2</sup>

☒ 4cm

☐ 13.67cm

☐ 7cm

☐ 5cm

**Q26** Solve for t in equation  $11 = 9t$  ☒ 16

☐ -3

☐ 6

☐ 3

☐ 9

**Q27** Solve for p in the equation  $4p + 42 = 10p + 12$

☐ 2

☐ 15

☐ 10

☐ 5

**Q28** Solve for m in  $6m^2 = m + 1$

☒  $\frac{1}{2}$  or  $\frac{1}{3}$

☐  $\frac{1}{6}$  or  $\frac{1}{3}$

☐  $\frac{1}{2}$

☐ 41642

**Q29** Remove bracket  $-3(a^2 - 2)$

☐  $-3a^2$  ☒ 6

☒ 6 ☒  $3a^2$

☐  $3a^2$

☐  $6 + 3a^2$

**Q30** Find the surface area of a right circular cone whose height is 7.2cm and slant height is 7.5cm.

☐ 21cm<sup>2</sup>

☐ 2.1cm<sup>2</sup>

☒ 63.4cm<sup>2</sup>

☐ 44.4cm<sup>2</sup>

**Q31** Factorize completely  $m^2$  ☒  $11m + 2r$

☐  $(m + 7)(m + 4)$

☐  $(m$  ☒ 7)  $(m$  ☒ 4)

☐  $(m + 7)(m$  ☒ 4)

☐  $(m$  ☒ 7)  $(m + 4)$

**Q32** Factorize completely  $16h^2$  ☒ 25

☐  $(h + 5)(h$  ☒ 5)

☐  $(4h + 5)(4h$  ☒ 5)

☐  $(4h$  ☒ 5)  $(4h$  ☒ 5)

☐  $(4h + 5)(4h + 5)$

**Q33 Factorize  $a^2 - b^2$**

- ☐  $a + b$
- ☐  $a - b$
- ☐  $(a + b)(a + b)$
- ☐  $(a + b)(a - b)$

**Q34 Calculate the volume of a cone given its length as 10cm and radius 6cm.**

- ☐  $301.7\text{cm}^3$
- ☐  $8\text{cm}^3$
- ☐  $301.7\text{cm}^2$
- ☐  $3000\text{cm}^2$

**Q35 Calculate the total surface area of a cone of slant height 5m and radius 2m.**

- ☐  $44\text{cm}$
- ☐  $308\text{m}$
- ☐  $44\text{m}^2$
- ☐  $220\text{m}^2$

**Q36 Calculate the radius of a circle whose area is given as  $3850\text{cm}^2$**

- ☐  $40\text{cm}$
- ☐  $35$
- ☐  $35\text{m}$
- ☐  $35\text{cm}$

**Q37 An arc AB subtends an angle of  $60^\circ$  at the centre of a circle of radius 4cm. Calculate the area of the minor sector.**

- ☐  $8.4\text{cm}$
- ☐  $8.4\text{cm}^2$
- ☐  $21.2\text{cm}^2$
- ☐  $2.52\text{cm}^2$

**Q38 An arc AB subtends an angle of  $60^\circ$  at the centre of a circle of radius 4cm. Calculate the area of the major sector.**

- ☐  $41.90\text{cm}$
- ☐  $41.9\text{cm}^2$
- ☐  $419\text{cm}^2$
- ☐  $420\text{cm}^2$

**Q39 A rectangle is 4 times as long as it is wide. If the perimeter of the rectangle is 50cm, find the length of the rectangle.**

- ☐  $5\text{cm}$
- ☐  $20$
- ☐  $20\text{cm}$
- ☐  $2\text{cm}$

**Q40 A cylinder has a radius of 6cm and a height of 4cm. What is the area of the curved surface?**

- ☐  $1056\text{cm}^2$
- ☐  $150.9\text{cm}^2$
- ☐  $159\text{m}^2$
- ☐  $15.9\text{cm}^2$

**Q41 Which type of equation is  $3x + 3 = 5x$ ?**

- ☐ Polynomial
- ☐ Quadratic
- ☒ Linear
- ☐ Simultaneous

**Q42 What is the process of finding the numerical value of a variable in a formula, when the values of the other variables are given?**

- ☒ Substitution
- ☐ Elimination
- ☐ Formula
- ☐ Change of change

**Q43 What is an outer view of solids and plane shapes?**

- ☐ edges
- ☐ side
- ☒ surface
- ☐ vertex

**Q44 What describes the relationship between variables?**

- ☐ Objective
- ☐ Unknown
- ☐ Equation
- ☒ Formula

**Q45 The parallel sides of a trapezium are 10cm and 16cm. If the area of the trapezium is 98cm<sup>2</sup>. Calculate the distance between the parallel sides. \_\_\_\_**

- ☐ 72cm
- ☐ 8cm
- ☐ 10.8cm
- ☒ 5.4cm

**Q46 The intersection of x-axis and y-axis on the Cartesian plane is called**

- ☐ abissae
- ☐ y-coordinate
- ☐ x-coordinate
- ☒ origin

**Q47 Solve for x and y in these eqns  $2x - 5y = 7$  and  $xy = 6$**

- ☐ (1, 1) (5/2, 12/5)
- ☒ (6, 1) (-5/2, 12/5)
- ☐ (6, 1) (5/2, 12/5)
- ☐ (1, 6) (12/5, -5/2)

**Q48 Round off 16.0077 to two decimal places.**

- ☐ 16
- ☒ 16.01
- ☐ 16.81
- ☐ 16.807

**Q49** In a quadratic graph, the points at which the curve cuts the x-axis are called the \_\_\_\_ of the equation.

- ☐ solutions
- ☐ answers
- ☒ roots
- ☐ pairs

**Q50** Greater than is denoted by which of the following sign.

- ☐ <
- ☐ >
- ☐ <
- ☐ >

**Q51** Given an equation  $y = x^2 - 3x + 2$  for  $0 < x < 4$ . Find y when  $x = 4$

- ☐ 4
- ☐ -2
- ☒ 2
- ☐ -4

**Q52** Find the area of a sector of a circle with radius 14cm and 160 degree as angle at the centre. \_\_\_\_

- ☒ 273.8cm<sup>2</sup>
- ☐ 146.4cm
- ☐ 109.52cm
- ☐ 96.55cm

**Q53** Divide 2302four by 2

- ☐ 1651
- ☐ 1211four
- ☐ 1211four
- ☒ 1121four

**Q54** Calculate the volume of a cylinder whose diameter is 6cm and length is 21cm. \_\_\_\_

- ☐ 297cm<sup>2</sup>
- ☒ 594cm<sup>2</sup>
- ☐ 600cm<sup>2</sup>
- ☐ 820cm<sup>2</sup>

**Q55** Calculate the volume of a cylinder whose diameter is 6cm and length is 21cm. \_\_\_\_

- ☒ 594cm<sup>2</sup>
- ☐ 297cm<sup>2</sup>
- ☐ 146cm<sup>2</sup>
- ☐ 73cm<sup>2</sup>

**Q56** Approximate 186.75 to 3 significant figures.

- ☐ 200
- ☐ 190
- ☒ 187
- ☐ 186.8

**Q57** Add up 213four and 321four

- ☐ 120four
- ☒ 1200four
- ☐ 1201four
- ☐ 535

**Q58 A man gets N1000 for 10 days of work. Find the amount he got for  $\frac{1}{2}$  a day.**

- ☐ 500
- ☐ N500
- ☐ N5000
- ☒ N50

**Q59 A cylinder of of height 20cm has a total surface area of  $1180\text{cm}^2$ . Find the radius of the cylinder**

- 
- ☒ 7cm
  - ☐ 10cm
  - ☐ 15cm
  - ☐ 20cm

**Q60 A cylinder has a curved surface area  $186\text{cm}^2$ . What is the diameter of the cylinder if the length is 4.22cm?**

- ☐ 4.22cm
- ☐ 7.04cm
- ☐ 8.88cm
- ☒ 14.02cm

**Q61 Remove the bracket in th expression  $(x-y)(x+y)$**

- ☒  $x^2-y^2$
- ☐  $y^2-x^2$
- ☐  $2x-2y$
- ☐  $x-y$

**Q62 Evaluate  $120/0.4$**

- ☐ 600
- ☐ 240
- ☒ 300
- ☐ 120

**Q63 Town A is 4km west of town B and town C is 3km east of town B, how far is town A from town C?**

- ☐ 3km
- ☐ 4km
- ☒ 7km
- ☐ 12km

**Q64 A tank holds 63 litres of water. The capacity of a cup is  $\frac{7}{10}$  of a litre. How many cups of water does the tank hold?**

- ☐ 83.333333333333
- ☒ 90
- ☐ 7.5
- ☐ 250



**Q65 Convert 0.457 to percentage**

- ☐ 0.457
- ☐ 0.0457
- ☐ 0.0045
- ☐ 0.0457

**Q66 What is 25% of 270?**

- ☐ 6.75
- ☐ 72.5
- ☐ 27
- ☐ 67.5

**Q67 A man get N1000 for 20days of work. Find the amount he got for 5 days.**

- ☐ N50
- ☐ N5000
- ☐ N500
- ☐ N250

**Q68 Convert 156ten to base two**

- ☐ 1001110two
- ☐ 10011two
- ☐ 10011100two
- ☐ 11100two

**Q69 Express 0.065 as percentage**

- ☐ 0.065
- ☐ 0.56
- ☐ 0.605
- ☐ 0.056

**Q70 Factorize  $p^2 - q^2$**

- ☐  $p+p$
- ☐  $p-q$
- ☐  $(p-q)(p+p)$
- ☐  $(p-q)(p-q)$

**Q71 Factorize completely  $9h^2 - 25$**

- ☐  $(h + 5)(h - 5)$
- ☐  $(4h - 5)(3h - 5)$
- ☐  $(3h + 5)(3h - 5)$
- ☐  $(3h + 5)(3h + 5)$

**Q72 Express 41% as decimal**

- ☐ 4.1
- ☐ 0.41
- ☐ 41
- ☐ 0.041

**Q73 What is angle on a straight line?**

- ☐ 90°

- ☐ 180o
- ☐ 270o
- ☐ 360o

**Q74 Expand  $(x-y)(x+y)$**

- ☐  $xy-x-y$
- ☐  $x^2-y$
- ☐  $x^2+y^2$
- ☐  $x^2-y^2$

**Q75 Solve for t in  $6t^2 = t + 1$**

- ☐  $1/6$  or  $1/3$
- ☐  $1/2$  or  $1/3$
- ☐  $1/2$
- ☐ 3

**Q76 Solve for p and q in these equations  $2p-5q=7$  and  $pq=6$**

- ☐ (1, 6) ( $12/5$ ,  $-5/2$ )
- ☐ (1, 1) ( $5/2$ ,  $12/5$ )
- ☐ (6, 1) ( $5/2$ ,  $12/5$ )
- ☐ (6, 1) ( $-5/2$ ,  $12/5$ )

**Q77 Evaluate  $1/6$  of 24 +  $1/4$  of 160**

- ☐ 24
- ☐ 23
- ☐ 44
- ☐ 164

**Q78 One of these is not among types of triangle.**

- ☐ Parallelogram
- ☐ Scalene
- ☐ Equilateral
- ☐ Right-angled

**Q79 The closed curve by which a circle is bounded is called**

- ☐ diameter
- ☐ Circumference
- ☐ Sphere
- ☐ Radius

**Q80 A chord of a circle is 18cm long. The radius of the circle is 15cm. calculate the distance of the mid-point of the chord from the centre of the circle.**

- ☐ 144
- ☐ 12
- ☐ 12cm
- ☐ 1.2cm