PRIMARY MATHS SERIES

REVISION GUIDE FOR STANDARDS 7 AND 8

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GEOMETRY

6.1 Specific Objectives

By the end of this unit, the learner should be able to:

a) Construct triangles,

b) Construct circles touching the tree sides of a triangle.

c) Work out problems using Pythagorean Theorem,

d) Construct of parallelogram and rhombuses,

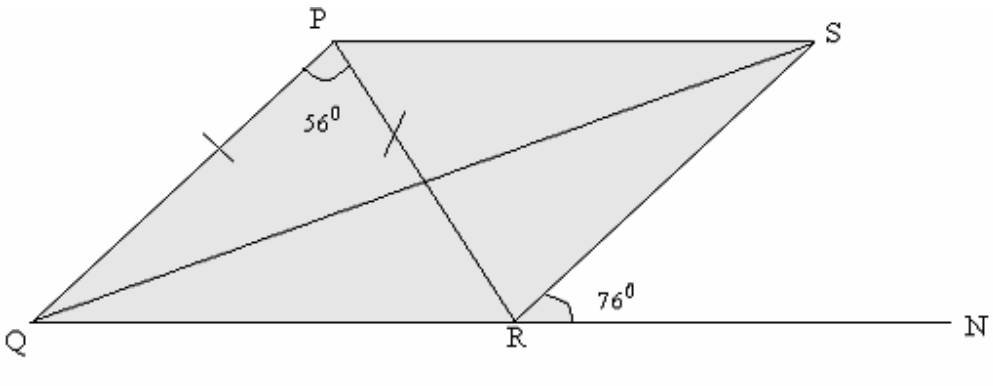
e) Work out problems involving properties of square, rectangles, parallelograms, rhombuses and trapeziums and angles on straight lines,

f) Recognize and identify triangular and square based pyramids and

g) Identify nets of pyramids and prisms.

6.2 Practice Test Paper 6

1. In the figure below, QS bisects angle PQR. Angle QPR = 56, angle QPR =56, angle SRN = 84 º and PQ = PR. QRN is a straight line.

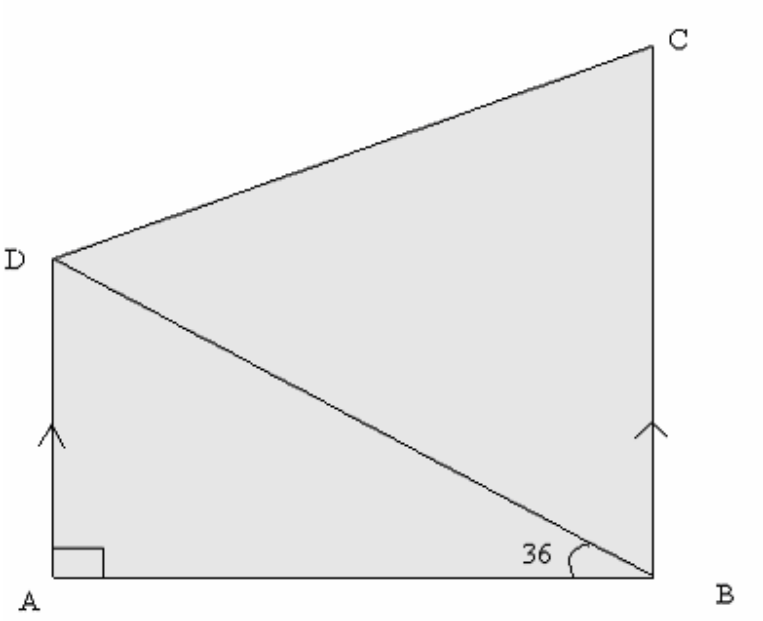


What is the size of angle QSR?

A 53º B. 31º C. 34º D. 42º

2. Construct triangle MNP in which MNP = , 55, PMN = 65 and line PM = 7am.Draw a circle that touches the three verticals of the triangle. Find the area of the circle.(Π = 3.14)

3. In the figure below, ABCD is a quadrilateral in which angle DAB = 90, and angle ABD =36. Line DA is parallel to CB and Dc.



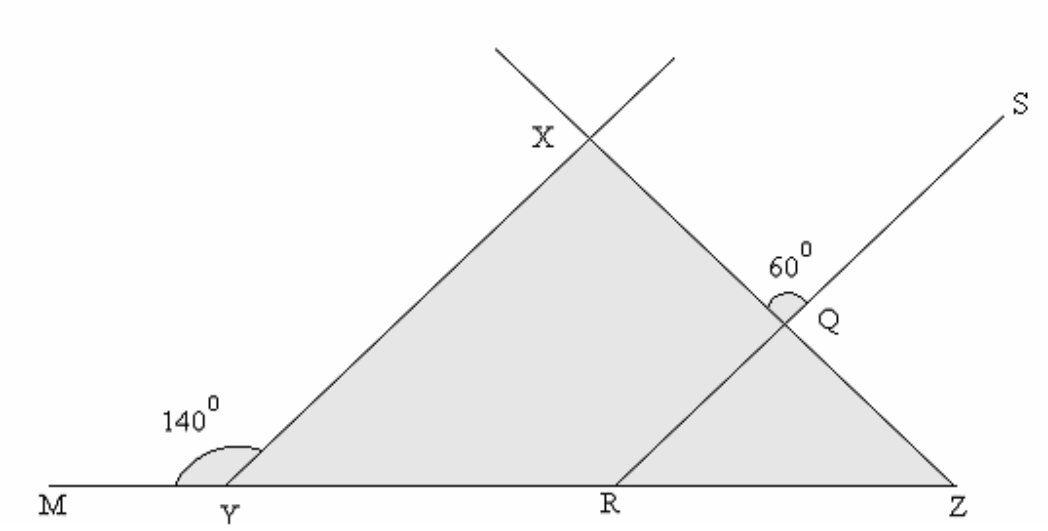
What is the size of angle BDC?

A. 36º B. 54º C. 72 D. 60º

4. Construct a circle of radius 3.5cm with centre O and diameter A OB. Construct triangle ABC such that AC = 3.5 cm and C is on the circumference of the circle. What is the size of angle COB?

A. 30 B. 60 C. 90 D. 120

5. In the figure below MYRZ, XQZ and RQS are straight lines. YX is parallel to RS. Angle MYX = 140 and angle XQS = 60º



What is the size of angle RZQ?

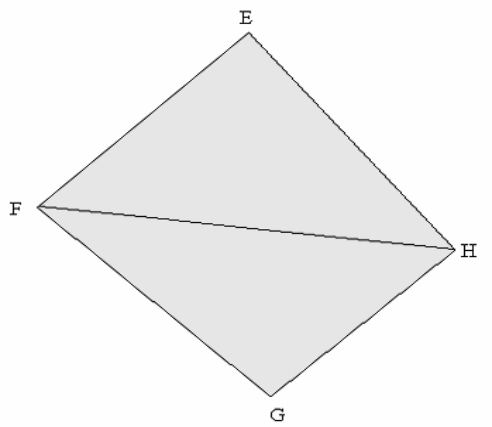
A. 80 B. 120 C. 40 D 60

6. From which of the following sets of lines can a right angled triangle be drawn?

A. 3 cm 4 cm 7 cm | B. 4 cm 5 cm 6 cm

C. 9cm 12 cm 15 cm | D. 9 cm 16 cm 25 cm

7. In the figure below EFGH is a quadrilateral and EFN is an equilateral triangle. Angle EFG = angle EHG = 90º



What is the size of angle FGH?

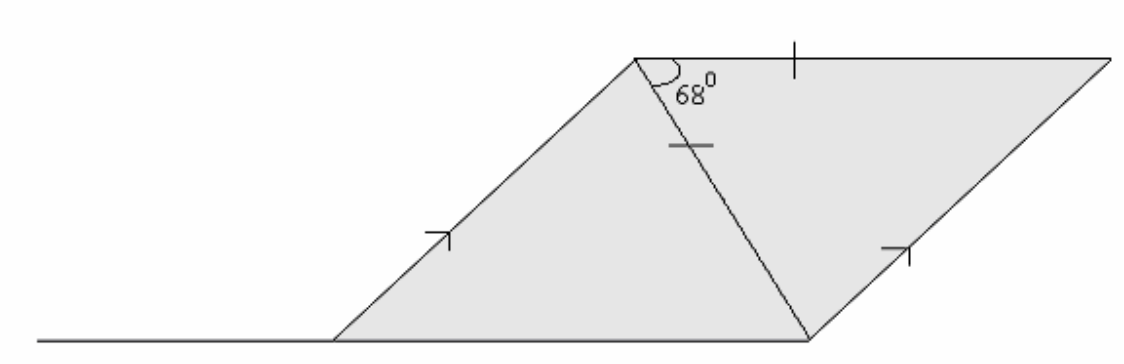
A. 60º B.90º C.120º D.30º

8. In which of the following sets of measurements will give a right-angled triangle?

A. 0.5 cm 1.2 cm 1.3 cm | B. 0.9 cm 1.6 cm 2.5 cm

C. 0.1 cm 0.3 cm 0.4 cm | D. 0.3 cm 0.4 cm 2.5 cm

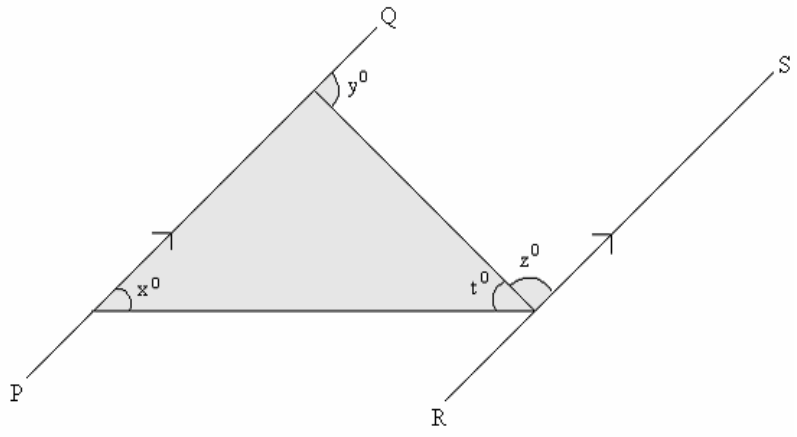
9. In the figure below PQRS is a quadrilateral which line PQ = PR line PS. Angle =68º TQR is a straight line and line PQ is parallel to



What is the size of angle T Q P?

A. 62º B. 68º C.118º D.124º

10. In the figure below PQ is parallel to RS



Which one of the following statements is there?

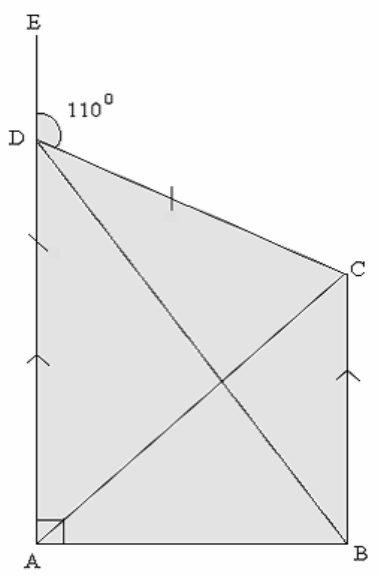
A. $x^{o} + t^{o} + z^{0} = 180^{o}$

B. $y^o + t^o + z^o = 180^o$

C. $x^o + y^o + z^o = 180^o$

D. $x^o + y^o + t^o = 180^o$

11. In the figure below, line ADE is parallel to the line BC. Angle DAB -= 90º and angle EDC = 110 line AD = DC



What is the size of angle ACB?

A.25º B. 35º C. 45º D. 55º

12. In the figure below, XY and XZ are straight lines meeting at x. Lines MN and MN and PQ at T and F respectively. Line XZ interested lines MN and PQ at V and G respectively. Line XT = TV and angle PFY = 40º

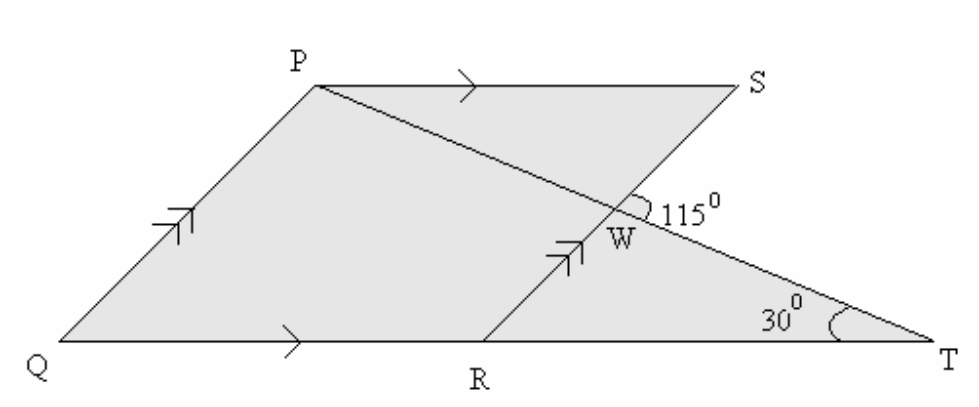
What is the size of angle TVZ?

A. 110º B. 70º C. 40º D. 140º

13. Construct triangle XYZ with side 5cm. Construct a circle that touches the vertices of the triangle you have constructed. What is the radius of the circle?

A. 5.8 cm B. 2.9cm C. 2.5 cm D.1.5 cm

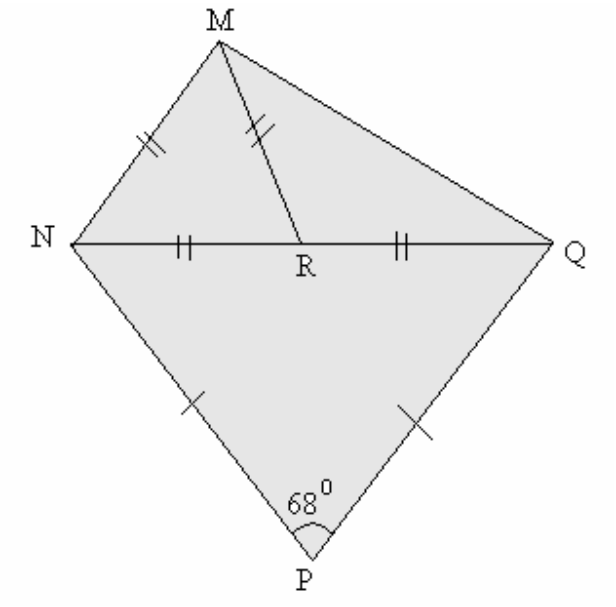
14. In the figure PQRS is a parallelogram. Lines QRT and PWT are straight. Angle 30º and angle TWS =115 º



What is the size of angle PQR?

A. 65º B. 85º C. 95º D 115º

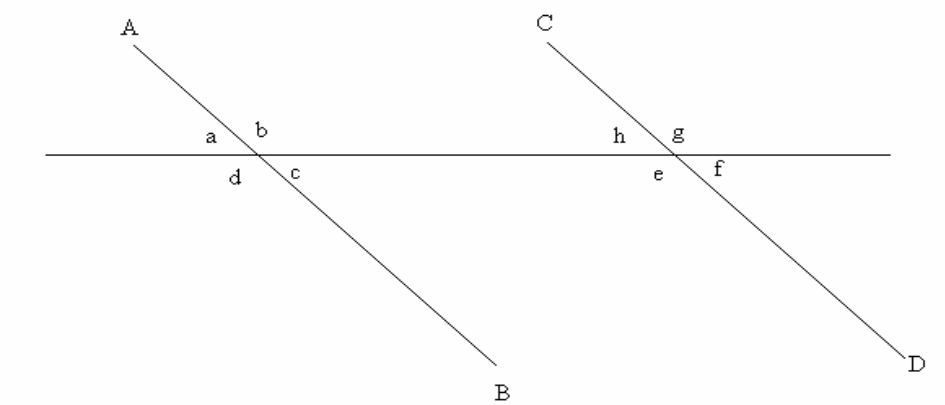
15. In the figure below, line MN = NR = RQ. NRQ is a straight line and line NP = PQ. Angle NPQ = 68º.



What is the size of angle PQM?

A. 116º B. 56º C. 86º D. 98º

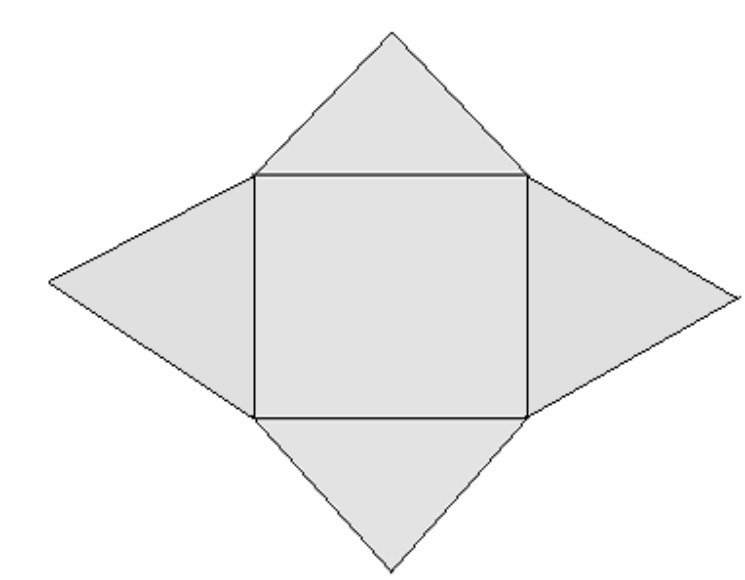
16. In the figure below AB and CD are parallel. Line EF is a transversal



Which one of the following choices contains equal angles?

A. a and e B. c and g C. b and f D. d and g

17. The figure below represents the net o f a solid.



The net is folded to form the solid. How many edges will the solid have?

A. 4 B. 5 C. 8 D. 12

18. Construct triangle PQR in which line QR is 6cm and QP = 8cm. Angle QRP = 76. Construct line RS parallel to line. Draw a perpendicular from P to meet line RS at T. What is the length of line PT?

A. 4.8 cm B. 5.1 cm C. 6.8 cm D. 9.5 cm

19. Which quadrilateral has ALL properties listed below?

(i) All sides are equal

(ii) All angles are right angles.

(iii) Diagonals are equal

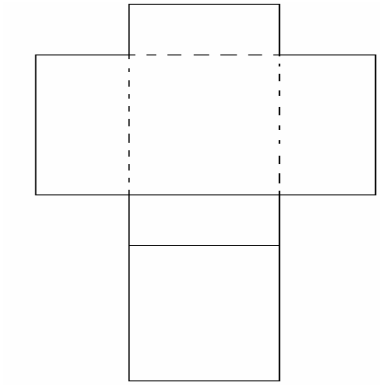
(iv) Diagonals bisect each other at right angles.

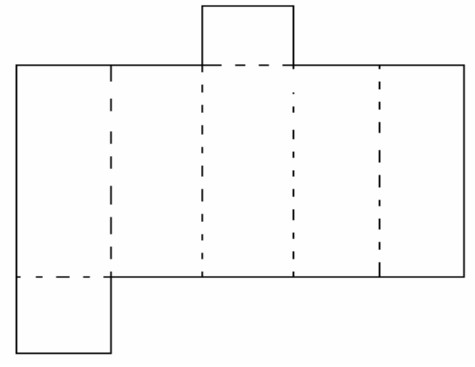
A. Square B. Trapezium C. Rectangle D. Rhombus

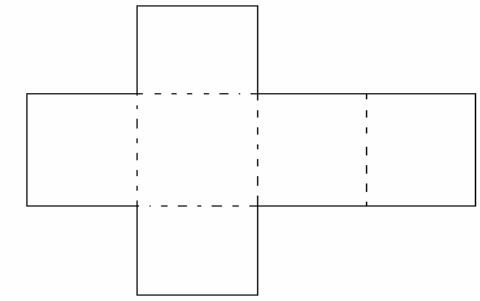
20. Construct triangle ABC in which AB = 5cm, A C = 7cm and BC = 6.5 CM .Bisect angle CB and let the bisectors meet the line AB at M. What is the size of angle PRM?

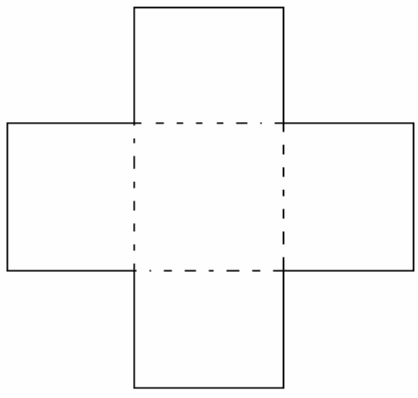
A. 22º B. 44º C. 63º D. 9521.

21. Which of the following nets shown below will form a closed cube when folded?

A. 

B 

C 

D 

22. Construct triangle PQR in which line QR= 7cm line PR = 8.5 cm and line PQ = 8cm.Construct the bisector of angle QPR to cut line QR at N. The two bisectors interest at point x. Join RX. What is the size of angle RXM?

A. 58 B. 60 C. 65 D. 117

23. Which of these statements below is a property of a right-angled triangle?

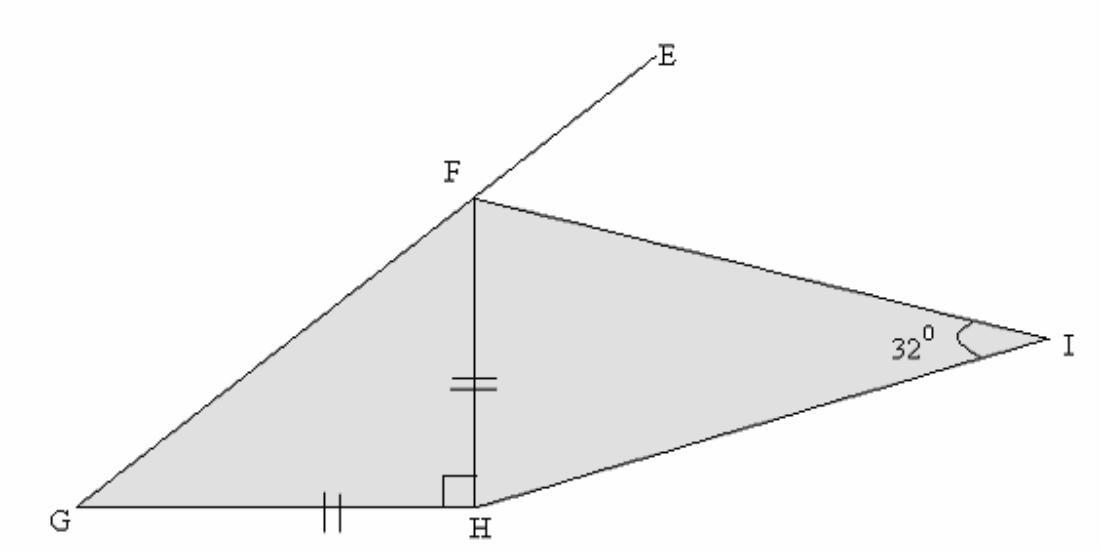
A. All sides are equal

B. Adjacent sides are equal

C. Two of its sides are perpendicular

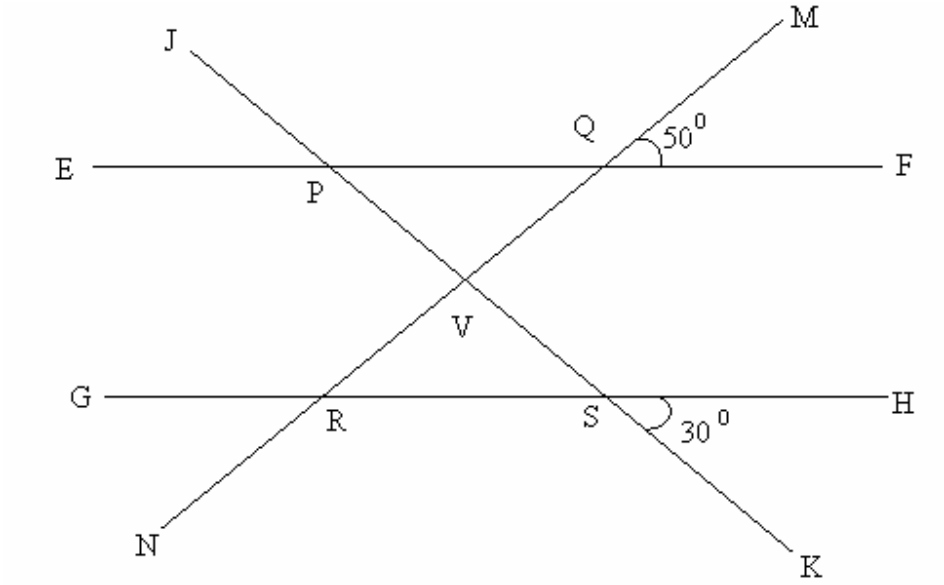
D. The longest side of the triangle is opposite the smallest angle.

24. In the figure below EFG is a straight line. Lines GH and FH are equal and lines HI and FI are also equal. Angle GHF is a right angle and angle HIF is 32º. What is the size of angle EFI?



A. 45º B. 61º C. 74º D. 103º

25. In the figure below, lines EF and GH are parallel lines. JK and MN are transversals which intersects at V. angle MQF = 50º.and angle HSK = 30º



What is the size of angle QVS?

A. 250º B.130 º C. 100 º D. 80 º

26. Construct a triangle XYZ in which YZ = 5.8cm, XZ = 6.2cm and XY = 7.2cm. What is the size of angle XYZ?

A. 125º B. 75º C. 55º D. 50 º

27. Which of the following sets of measurements will form a right-angled triangle when drawn?

A. 9cm	16cm	25cm
B.10cm	34cm	26cm
C. 5cm	12cm	17cm
D. 7cm	2.4cm	2.5cm

28. In a right-angled triangle, the length of the longest side is 40cm. Which one of the following pairs are the possible lengths of the two shorter sides?

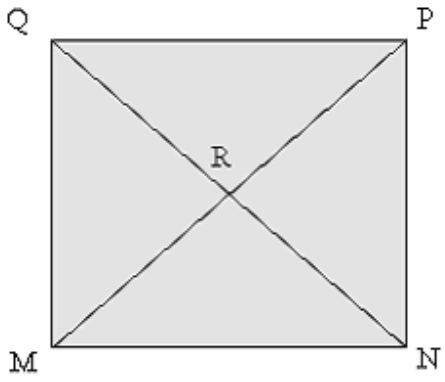
A. 12cm, 5cm B. 25cm, 15cm C. 24cm, 24cm D. 32cm, 24cm

29. Construct a parallelogram PQRS in which QR = 5.5cm and lines PQ = QR = 7cm. Construct a bisector of angle P Q R to meet line PR at x. What is the size of angle QXR?

A. 78 B. 44 C. 68 D. 102

30. Construct a parallelogram PQRS such that line PQ = 4.5cm, QR = 7.5 and angle SPQ = 60. Join PR. What is the size of angle PRS?

31. The figure below is a square in which diagonals interest at R



Which of the following statements is true for triangle MRN?

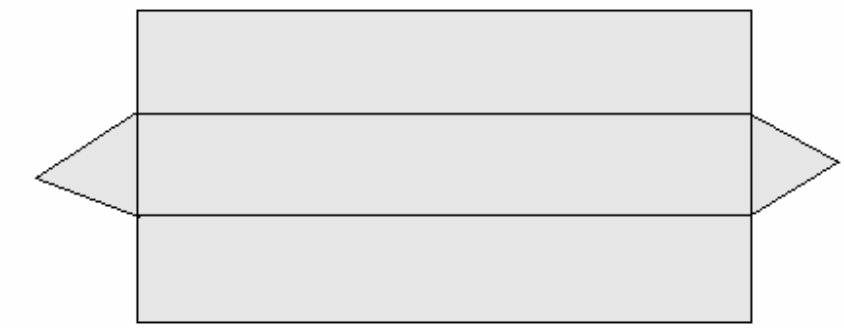
A. All sides are equal

B. All angles are equal

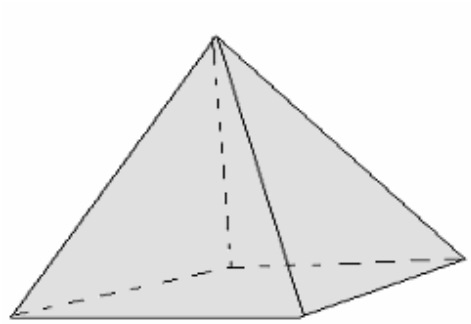
C. One of its angles is 670

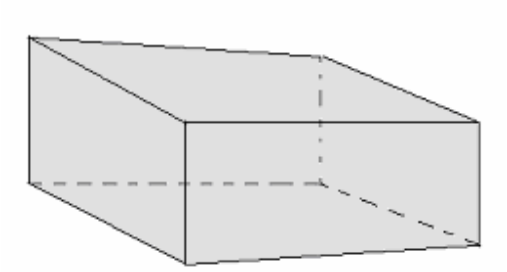
D. One angles is a right angle

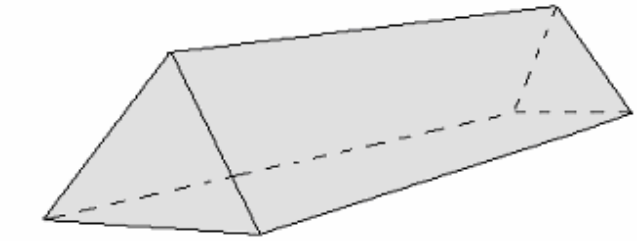
32. The diagram below is a net of a solid

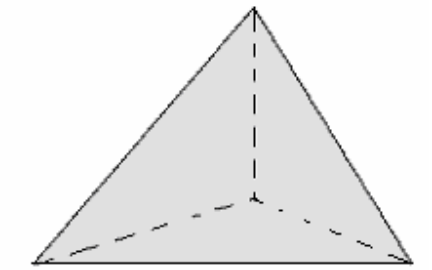


32. If the net is folded, which one of the following diagram represents the solids formed?

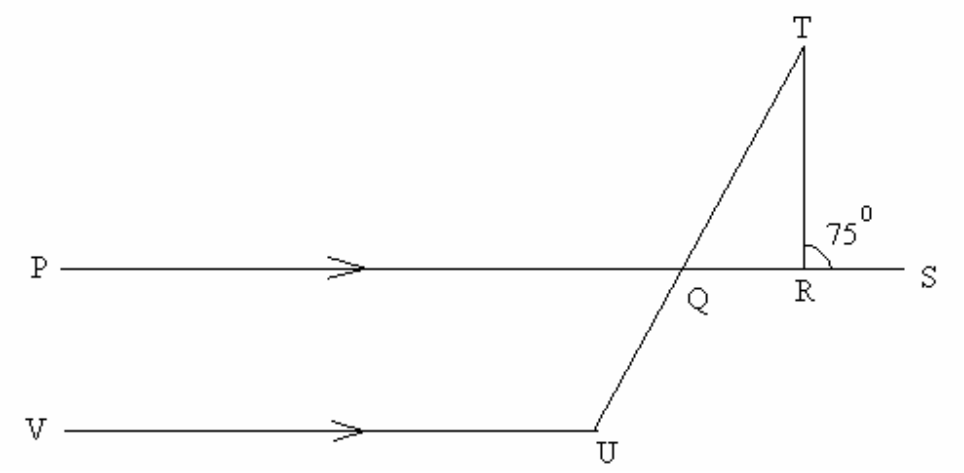
A. 

B 

C 

D 

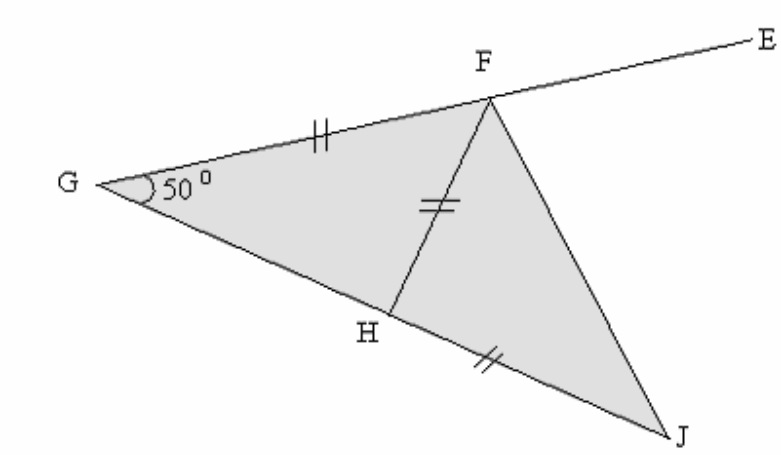
33. In the figure below, PS is parallel to VU, angle TRS =m75 and angle TUV = 130º



What is the sizes of angle RTQ?

A. 25 B. 55 C. 50 D. 105

34. In the figure below, GFE and GHJ are straight lines. Line GF =FH and angle FGH = 50



What is the measure of angle EFJ?

A.130 B.75 C.80 D.105

35. How many faces, verticals and edges does a triangular prism have

	Faces	Vertices	Edges
A.	4	4	6
B.	6	8	12
C.	5	5	8
D.	5	6	9

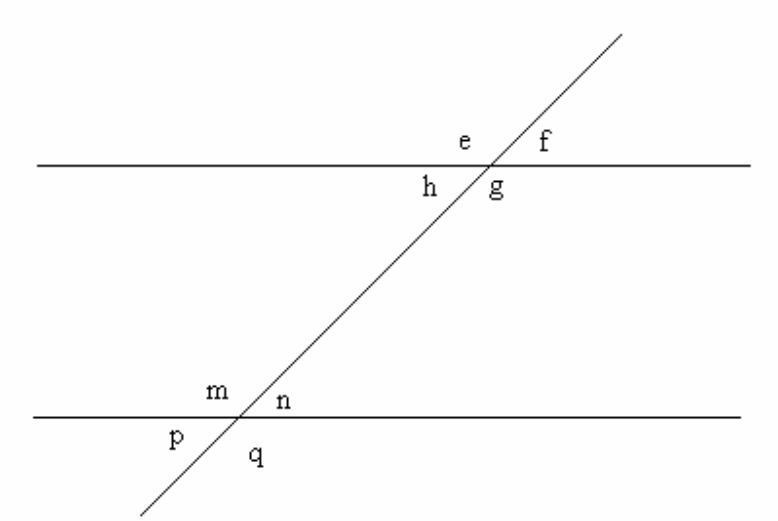
36. Construct triangle EFG with EF = 6.2cm, angle EFG = 60 and angle FEG = 40. Draw a perpendicular from G to meet line EF at H. What is the measure of line EH?

A. 5.4 cm B. 3.5 cm C. 4.1 cm D. 2.1 cm

37. Which one of the following quadrilaterals has only one pair of parallel lines?

A. Rhombus B. Trapezium C. Parallelogram D. Rectangle

38. The figure below shows angles formed by a pair of parallel lines and a transversal



In which group below, are each of the angles equal to N?

A. p, g , f B. p, m, f C. p, q, r D. p, h , f

39. Which of the foll0wing groups of measurements represents length of sides of a right angled triangle?

A. 7cm 12cm 13cm B. 5cm 4cm 25cm C. 3cm 4cm 6cm

D.12cm 16cm 20cm

40. Construct a semi-circle with diameter EF 6cm. Construct a line from F to meet the semi-cirlce at G such that angle FEG = 30. Construct a line from F to meet the semi-circle at H such that angle EFG is 20. Join points E to H, h to G to F. What is the length of line GH?

A. 3cm B. 3.9cm C. 5.3cm D. 5.7cm

41. Construct a parallelogram PQRS in which line PQ = 6cm, angle QPS = 60º and line PS = 4.5cm. What is the height of the following?

A. 3.9cm B. 5.4cm C 6.0cm D 9.1cm

42. A certain quadrilateral has the following properties.

(i) Has all sides equal

(ii) Has all sides equal

(iii) Diagonals bisect each other

(iv) Some angles are equal.

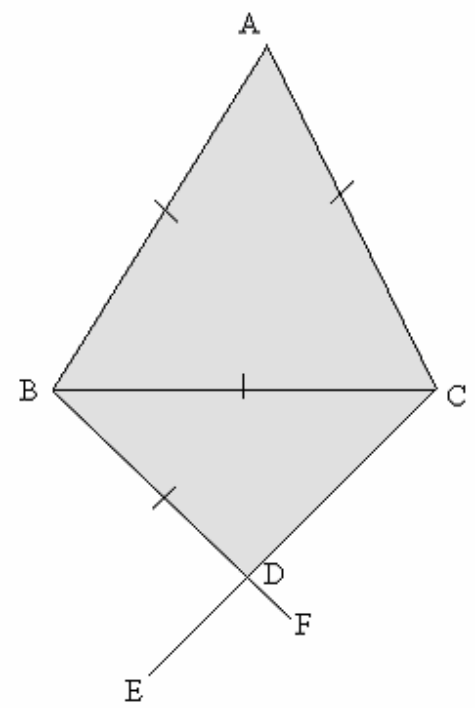
Which quadrilateral has the above properties?

A. Parallelogram B. Rhombus C. Square D. Trapezium.

43. Construct triangle XYZ such that XZ = 6cm, lines XY = XZ =8CM. Construct a circle that touches the three sides of the triangle. What is the radius of the circle?

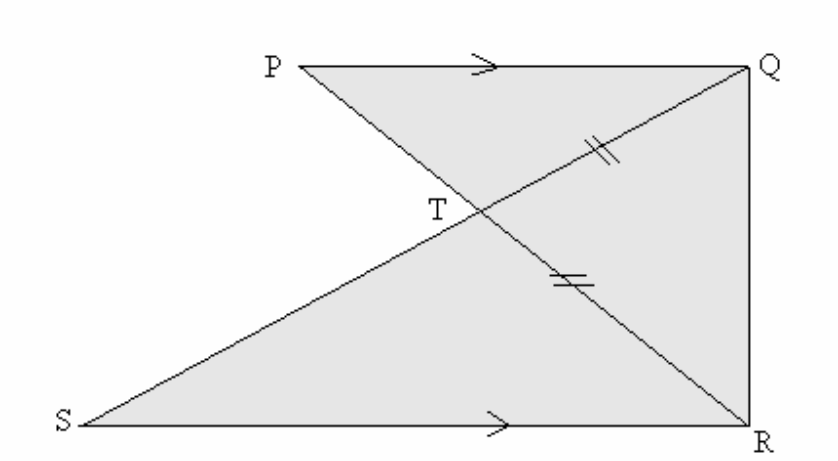
A. 20cm B. 3.6cm C. 4.3cm D. 5.4cm

44. In the figure below lines AB, AC, BC, and BD are equal. BDF ad CDE are straight lines and angle ABD is a right angle.



What is the size of the angle EDF?

45. In the figure below line PQ is parallel to line SR and QT is equal to TR. Angle QPT = 31 angle = 31º and angle TSR = 57 º.

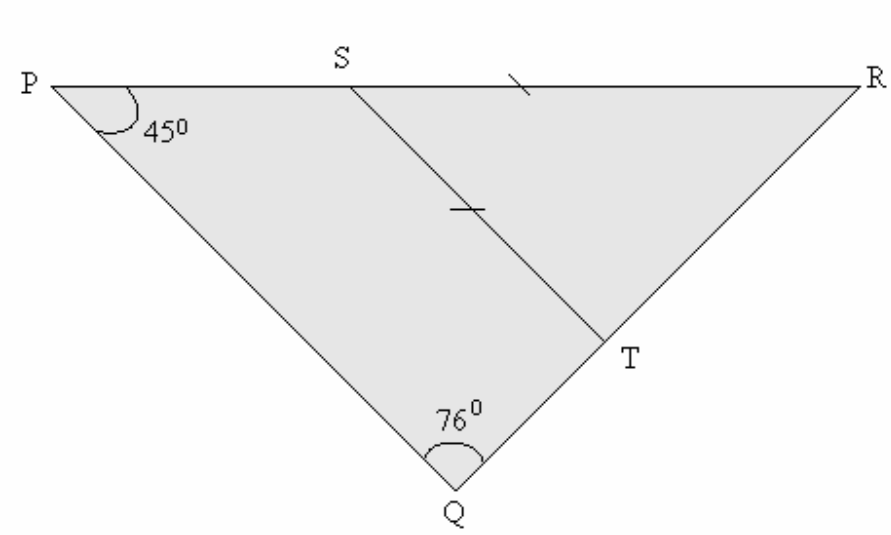


What is the size of angle PQR?

A. 46º B. 88º C. 103º D.92º

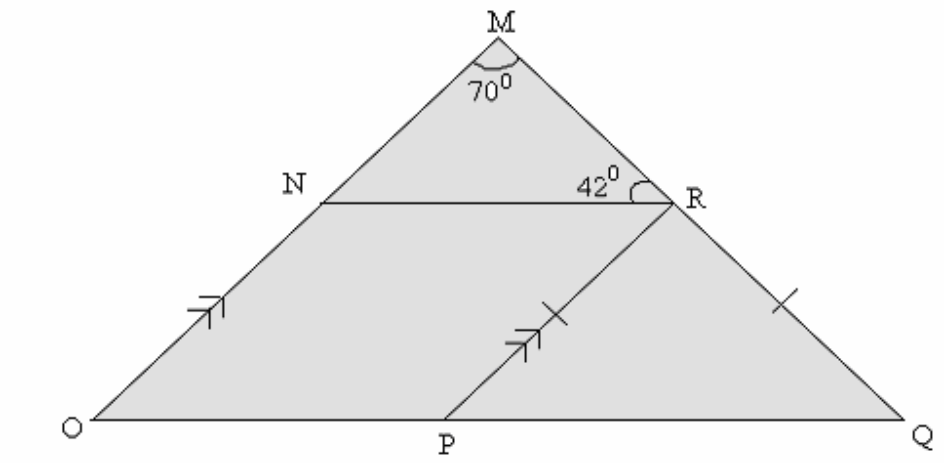
46. In the figure below lines ST and SR are equal. Angle RPQ = 45 and angle PQR = 76º

What is the size of angle PST?



A. 135º B. 121º C. 118º D 62º

47. The figure below is made of a parallelogram NOPR, triangles PRQ and MNR. Angle MNR = 70 and angle NRM = 42º



48. Construct triangle XYZ such that side YZ = 6cm angle YZX = 50º and angle ZXZ = 35º. What is the length of side XZ?

A.8.1 cm B. 10.4 cm C. 4.6 cm D 3.4 cm

6.3 Practice Test Paper 6 Answers

1		11		21		31		41	
2		12		22		32		42	
3		13		23		33		43	
4		14		24		34		44	
5		15		25		35		45	
6		16		26		36		46	
7		17		27		37		47	
8		18		28		38		48	
9		19		29		39			
10		20		30		40			