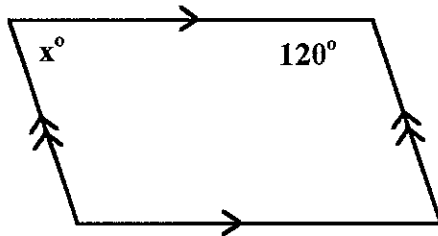


GEOMETRY YEARS 9 AND 10

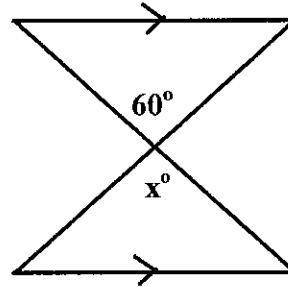
In the following questions, C represents the centre of a circle.

1 The diagram in which x is not equal to 60° is:

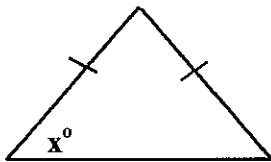
A



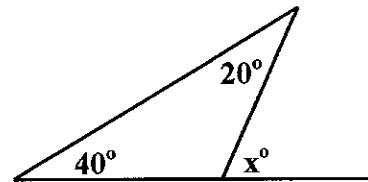
B



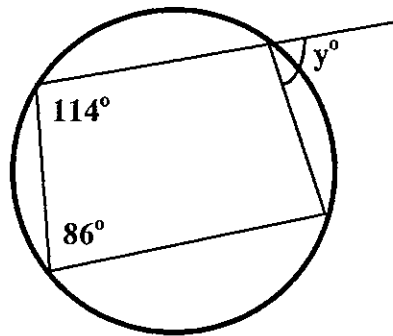
C



D

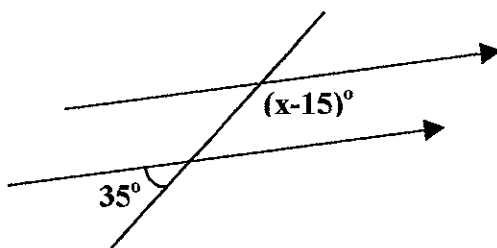


2 In the diagram, y is equal to:



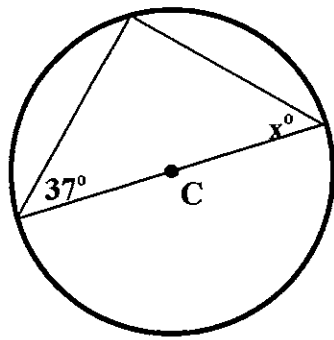
- A 66°
- B 86°
- C 94°
- D 114°

3 The value of x in this diagram is:



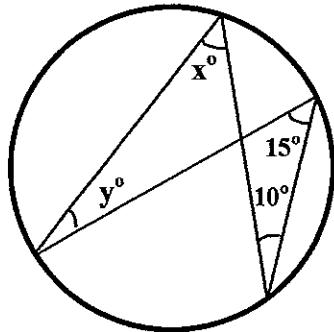
- A 35
- B 50
- C 145
- D 160

4 In this diagram, the value of x is:



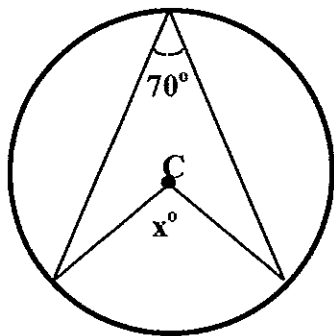
- A 37
- B 53
- C 63
- D 90

5 In this diagram, the value of x is:



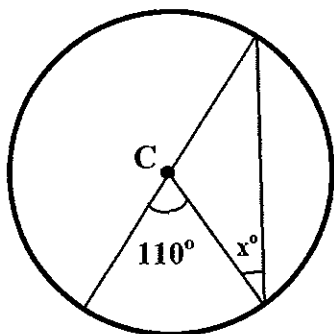
- A 10
- B 15
- C 25
- D unable to be determined unless y is known

6 Angle x° equals:



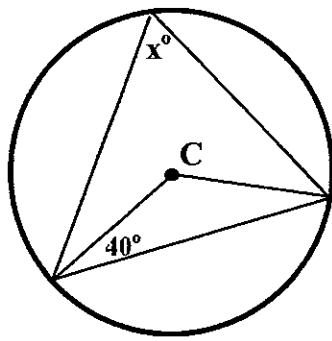
- A 35°
- B 70°
- C 110°
- D 140°

7 The value of x is:



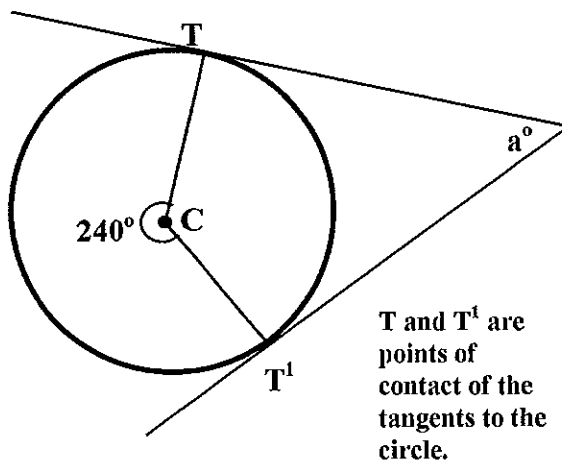
- A 55
- B 70
- C 110
- D 220

8 In this diagram, the value of x is:



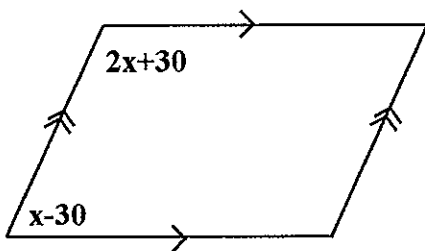
- A 40
- B 50
- C 80
- D 100

9 The value of a is:



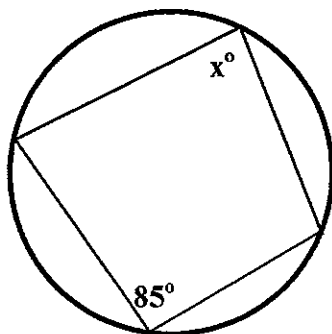
- A 30°
- B 60°
- C 120°
- D unable to be determined since there is insufficient information

10 From this diagram, the value of x is:



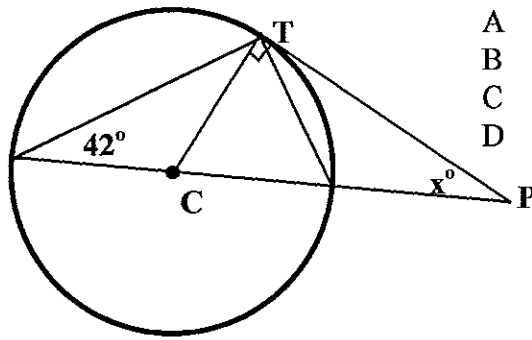
- A 30
- B 45
- C 60
- D unable to be determined since there is insufficient information.

11 In the diagrams x is equal to:



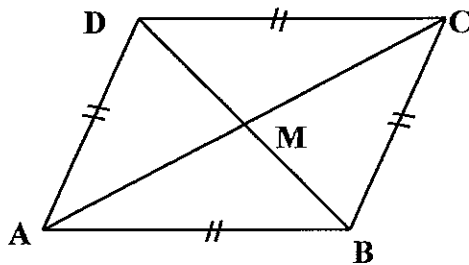
- A 42.5
- B 85
- C 90
- D 95

- 12 PT is a tangent to the circle of centre C. The value of x is:



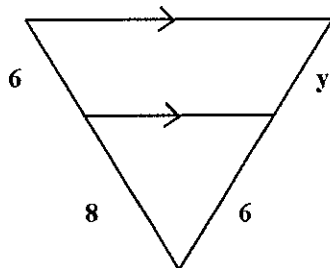
- A 6
- B 21
- C 42
- D 48

- 13 ABCD is a rhombus with diagonals AC and BD intersecting at M. The *incorrect* statement about this diagram is:



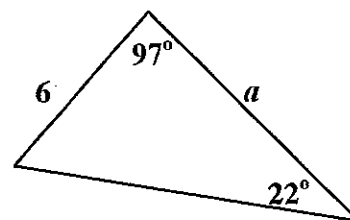
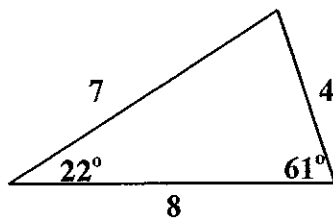
- A BD is perpendicular to AC.
- B BD is equal in length to AC.
- C Triangle DMA is similar to triangle CMB.
- D Triangles AMB and CMD are congruent.

- 14 From this diagram, y is equal to:



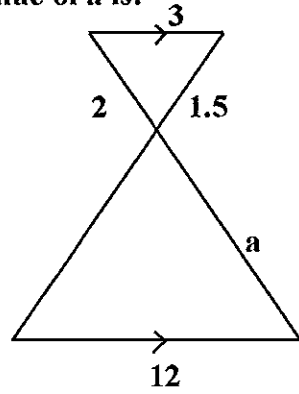
- A 3.5
- B 4
- C 4.5
- D 5

- 15 From the pair of triangles shown, the value of a is:



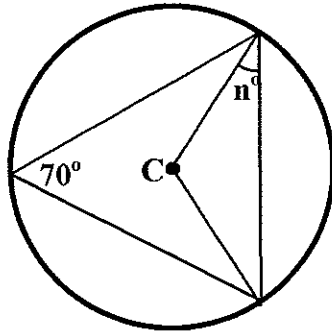
- A $3\frac{3}{7}$
- B $5\frac{1}{4}$
- C $10\frac{1}{2}$
- D 12

16 The value of a is:



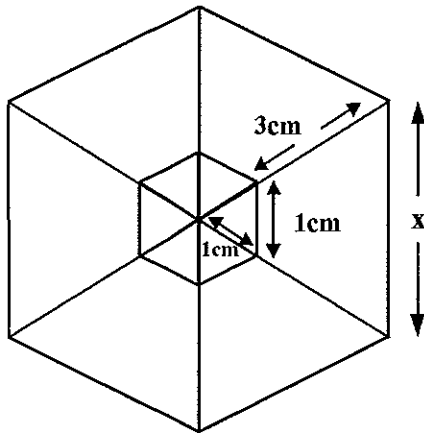
- A 6
- B 8
- C 11
- D unable to be determined without further information.

17 The value of n is:



- A 20
- B 35
- C 40
- D 70

18 A student enlarged a regular hexagon, as shown. The larger hexagon has a value of x of:

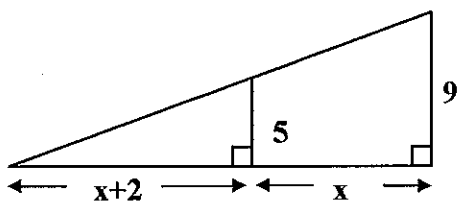


- A 3 cm and 3 times the original area.
- B 3 cm and 9 times the original area.
- C 4 cm and 4 times the original area.
- D 4 cm and 16 times the original area.

19 A man cast a shadow of 150 cm at the same time that a building 40 m tall cast a shadow of 36 m. The height of the man was closest to:

- A 135 cm
- B 154 cm
- C 166 cm
- D 167 cm

20 The value of x is:



- A 4
- B 6
- C 8
- D 10

ANSWERS TO GEOMETRY

1	C	2	B	3	D	4	B	5	B	6	D
7	A	8	B	9	B	10	C	11	D	12	A
13	B	14	C	15	C	16	B	17	A	18	D
19	D	20	C								