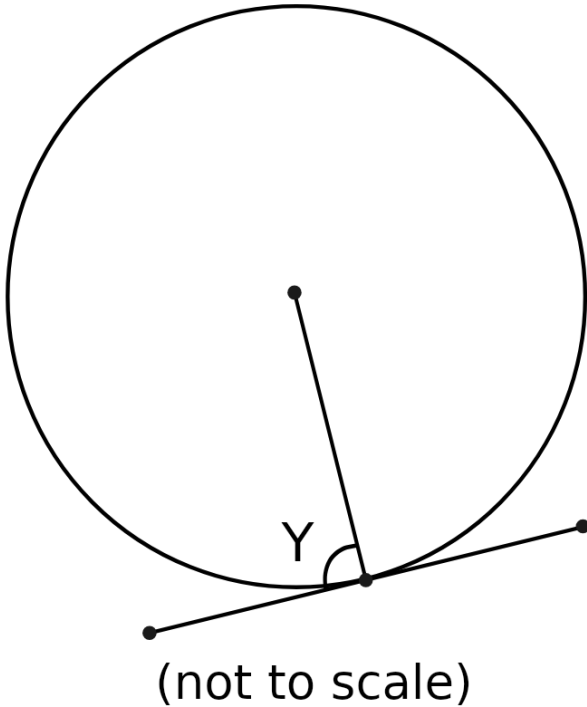




Geometry - Intermediate - Practice

1 What geometry rule would help find angle Y?



A

Angle Y will always be 60°

B

Angle Y will always be 180°

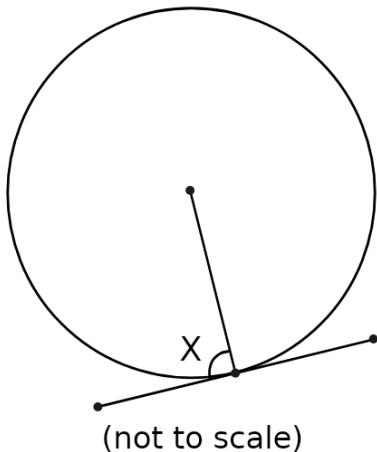
C

Angle Y will always be 90°

D

Angle Y will always be 45°

2 What is angle X?



A

110

B

70

C

65

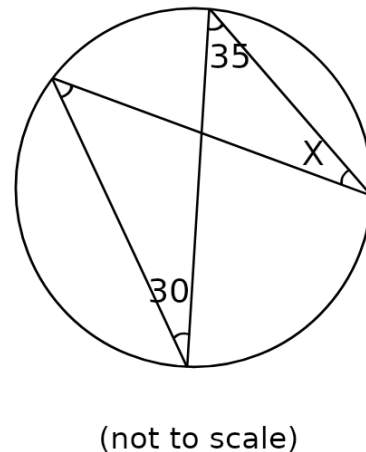
D

105

E

90

3 What is angle X?



A

20

B

55

C

30

D

50

E

35

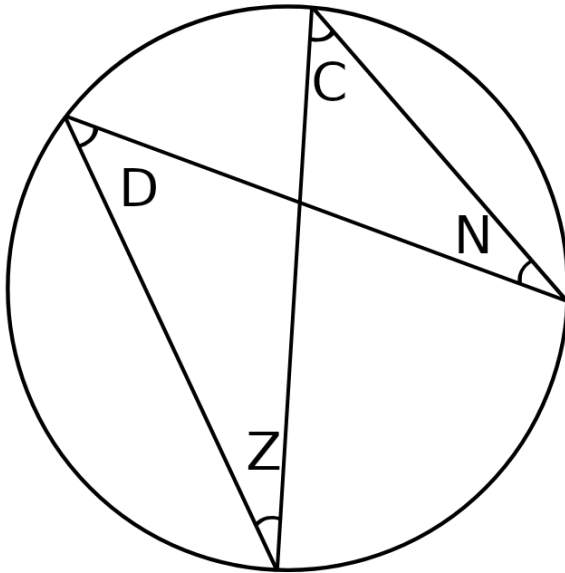
F

5



Geometry - Intermediate - Practice

4 What geometry rule would help find angle C?



(not to scale)

A

Angles C and D will add to 180°

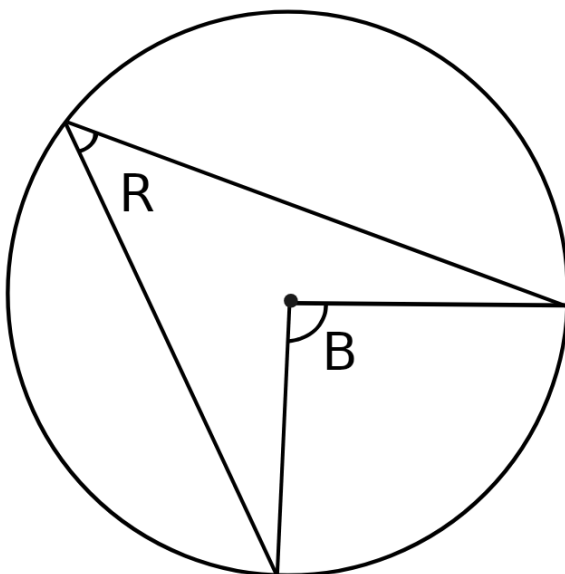
B

Angle C will be identical to Z because they subtend the same arc

C

Angle C will be identical to D because they subtend the same arc

5 What geometry rule would help find angle R?



(not to scale)

A

Angle R will be twice B

B

Angles R and B will add to 180°

C

Angle R will be identical to B because they subtend the same arc

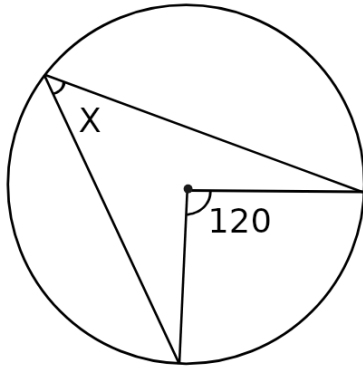
D

Angle B will be twice R



Geometry - Intermediate - Practice

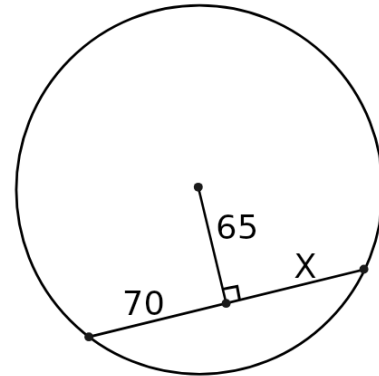
6 What is angle X?



(not to scale)

A 60	B 45	C 70
D 75	E 85	

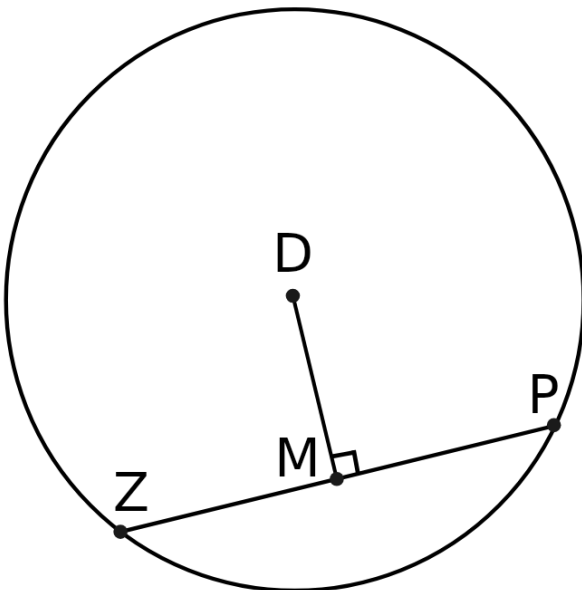
7 What is the length of X?



(not to scale)

A 5	B 70	C 130
D 65	E 140	

8 What geometry rule would help find length ZM?



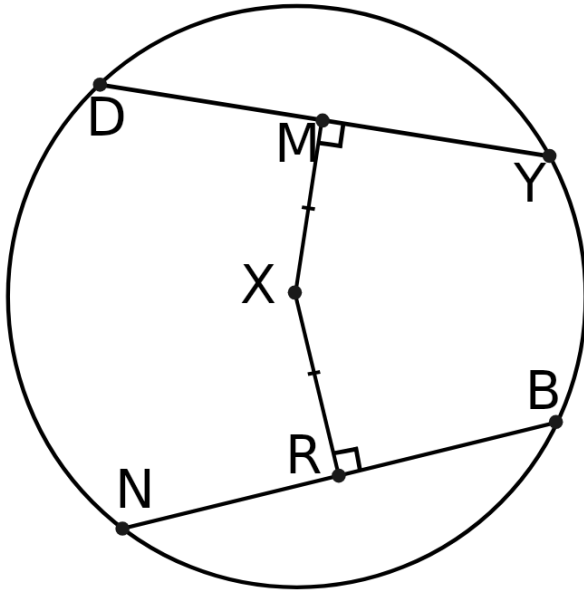
(not to scale)

A Length ZP will be twice MD
B Length ZM will be twice MP
C Length ZM will be identical to MP
D Length ZP will be identical to MD



Geometry - Intermediate - Practice

9 What geometry rule would help find length NB?



(not to scale)

A

Length NB will be twice XM

B

Length NB will be identical to DY

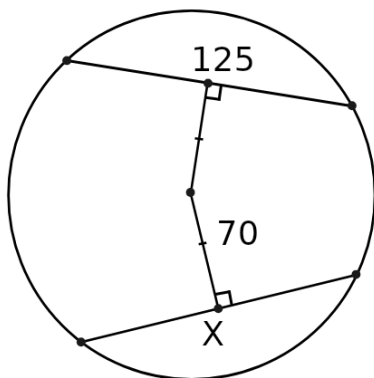
C

Length NB will be twice DY

D

Length NB will be identical to XM

10 What is the length of X?



(not to scale)

A

125

B

140

C

55

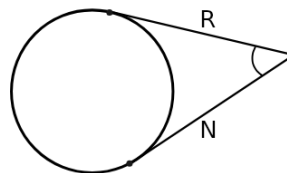
D

250

E

70

11 What geometry rule would help find length R?



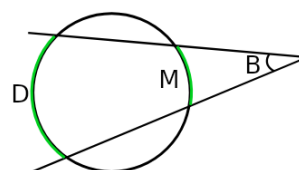
(not to scale)

A Length R is twice N

B Length R is half N

C Lengths R and N are the same

12 What geometry rule would help find angle D?



(not to scale)

A Angle B is half of D - M

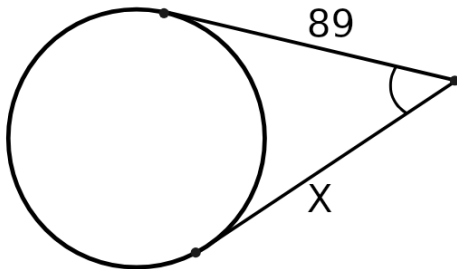
B Angle B is twice D - M

C Angle M is half D - B



Geometry - Intermediate - Practice

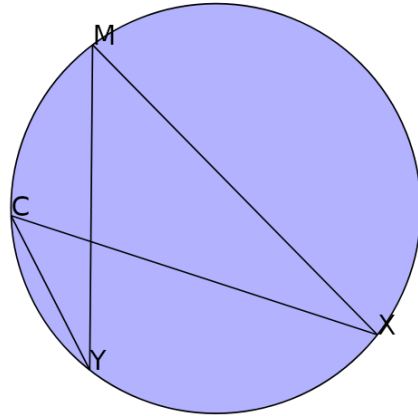
13 What is the length of X?



(not to scale)

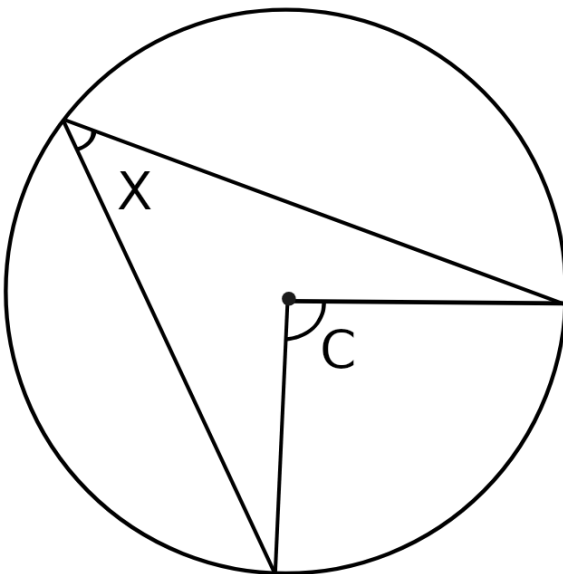
A 94	B 84	C 89
D 92	E 87	

14 What is known about angle XCY and XMY given that they are both subtended by arc XY?



A XCY and XMY add to 90°	B XCY and XMY add to 180°	C Nothing, XCY and XMY are not subtended by the same arc
D XCY is the same as XMY	E XCY is twice XMY	F XCY and XMY add to 360°

15 What geometry rule would help find angle X?



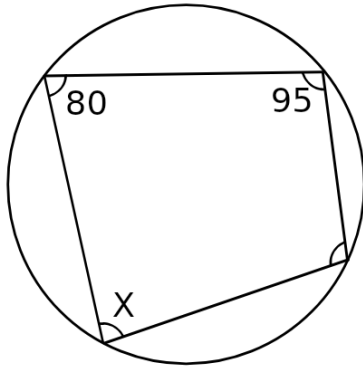
(not to scale)

A Angle X will be twice C
B Angles X and C will add to 180°
C Angle X will be identical to C because they subtend the same arc
D Angle C will be twice X



Geometry - Intermediate - Practice

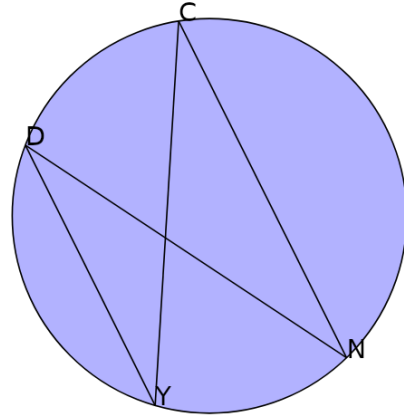
16 What is angle X?



(not to scale)

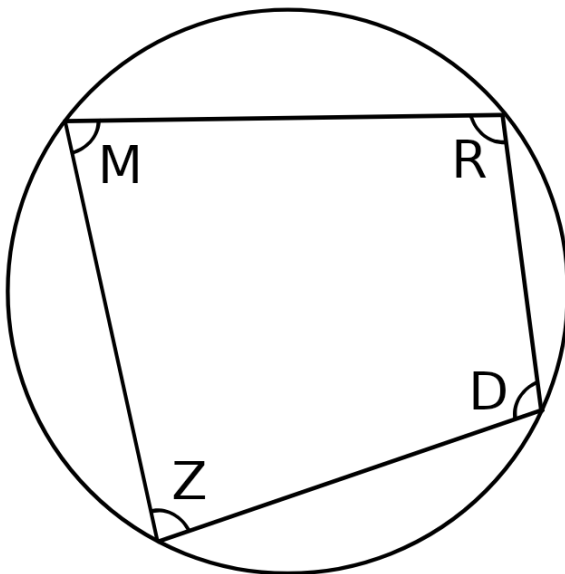
A 100	B 95	C 85
D 70	E 75	

17 Find angle NDY in degrees given that NCY is 30°



A 60°	B 90°	C 45°
D 150°	E 75°	F 30°

18 What geometry rule would help find angle R?



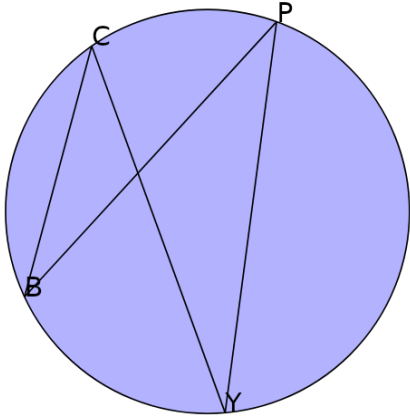
(not to scale)

A Angles R and Z add up to 90°
B Angles D and Z add up to 180°
C Angles R and Z are identical
D Angles R and Z add up to 180°



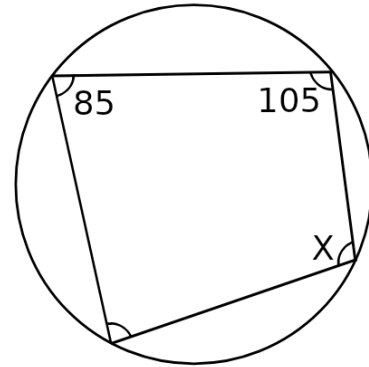
Geometry - Intermediate - Practice

19 Find angle YCB in degrees given that YPB is 35°



A 125°	B 40°	C 80°
D 65°	E 55°	F 35°

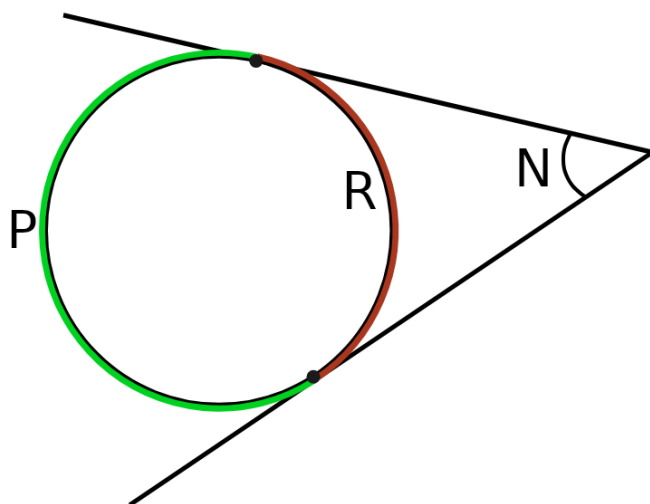
20 What is angle X?



(not to scale)

A 105	B 95	C 110
D 80	E 100	F 85

21 What geometry rule would help find angle P?



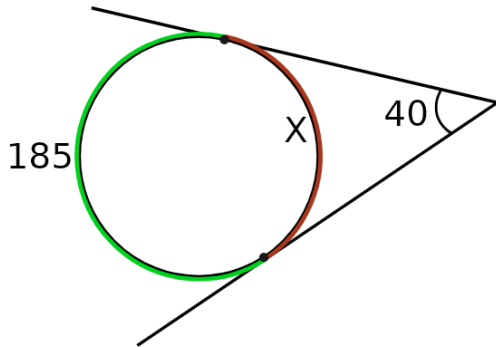
(not to scale)

A Angle N is half of $P - R$
B Angle N is twice $P - R$
C Angle R is half $P - N$



Geometry - Intermediate - Practice

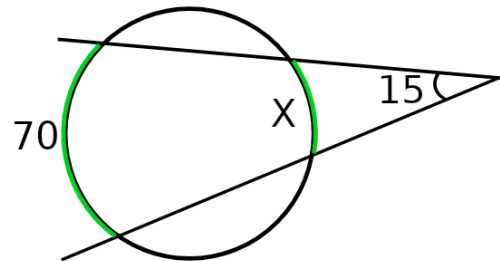
22 What is angle X?



(not to scale)

A 105	B 115	C 120
D 130	E 90	F 85

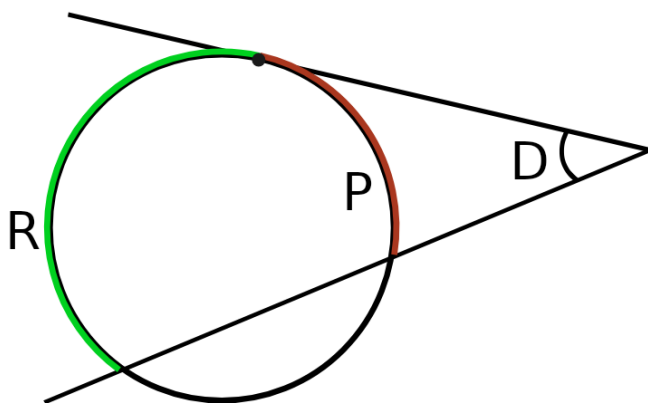
23 What is angle X?



(not to scale)

A 40	B 50	C 55
D 60	E 25	F 35

24 What geometry rule would help find angle P?



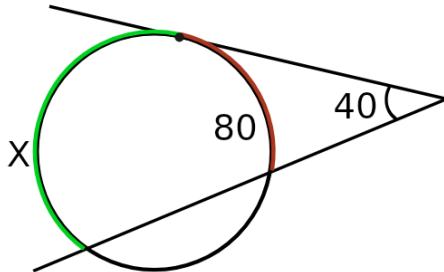
(not to scale)

A Angle P is half $R - D$
B Angle D is twice $R - P$
C Angle D is half of $R - P$



Geometry - Intermediate - Practice

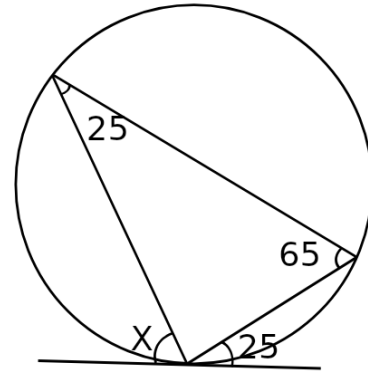
25 What is angle X?



(not to scale)

A 165	B 150	C 140
D 160	E 185	F 180

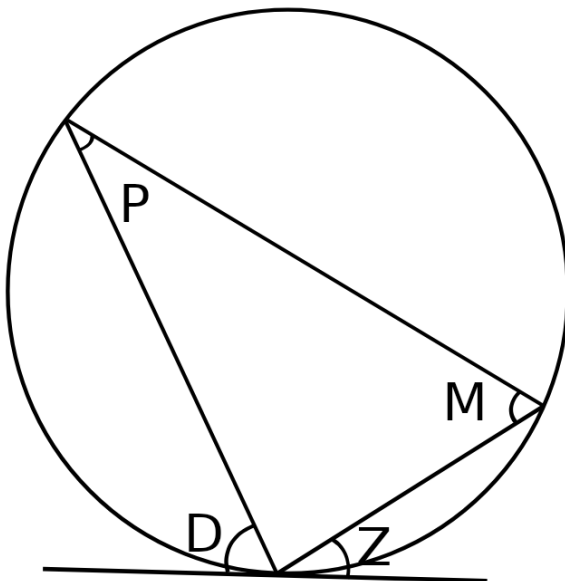
26 What is angle X?



(not to scale)

A 40	B 65	C 55
D 45	E 60	

27 What geometry rule would help find angle D?



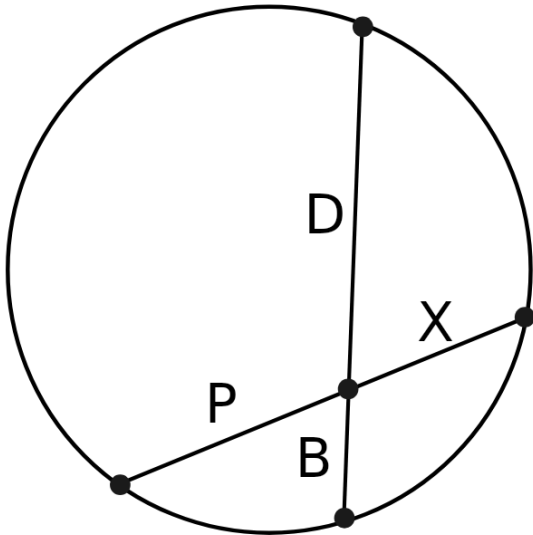
(not to scale)

A Angle D will always be 90°
B Angle D will be identical to M
C Angle D and P will add to 180°
D Angle D will be identical to P



Geometry - Intermediate - Practice

28 What geometry rule would help find length D?



(not to scale)

A

Lengths D times B equals P times X

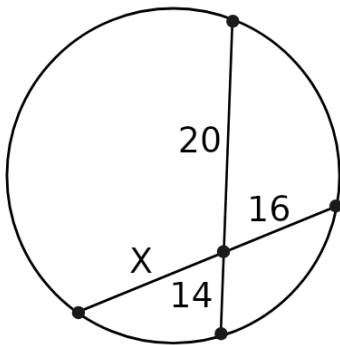
B

Lengths P times B equals D times X

C

Lengths D plus B equals P plus X

29 What is the length of X?



(not to scale)

A

19

B

18

C

14

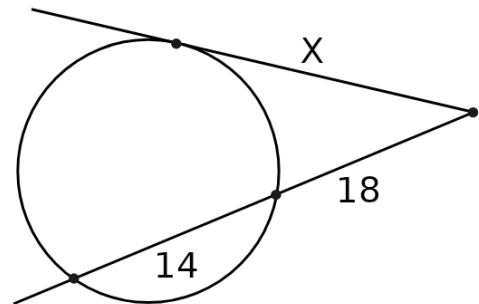
D

23

E

20

30 What is the length of X?



(not to scale)

A

28

B

24

C

26

D

29

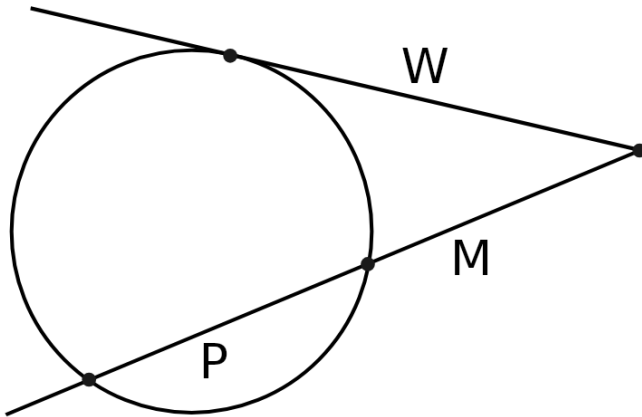
E

27



Geometry - Intermediate - Practice

31 What geometry rule would help find length P?



(not to scale)

A

Length W minus P is twice M

B

Length W is the same as P plus M

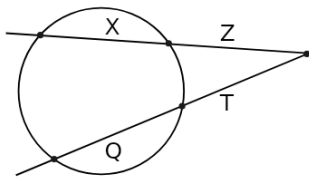
C

Length W squared is the same as P times M

D

Length W squared is the same as M times the sum of M and P

32 What geometry rule would help find length Z?



(not to scale)

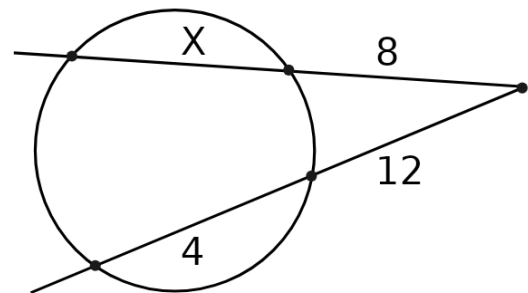
A Length Z plus X is the same as T plus Q

B Length X times the sum of X and Z is the same as Q times the sum of Q and T

C Length Z times X is the same as T times Q

D Length Z times the sum of X and Z is the same as T times the sum of Q and T

33 What is the length of X?



(not to scale)

A

13

B

21

C

17

D

18

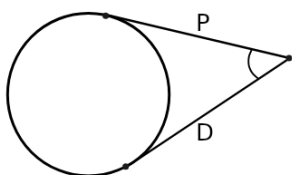
E

20

F

16

34 What geometry rule would help find length D?



(not to scale)

A Length P is half D

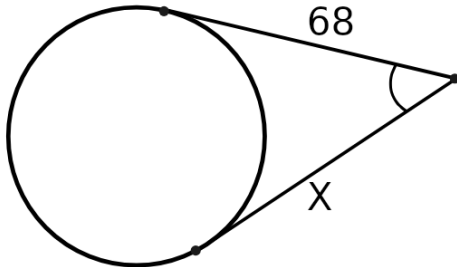
B Lengths P and D are the same

C Length P is twice D



Geometry - Intermediate - Practice

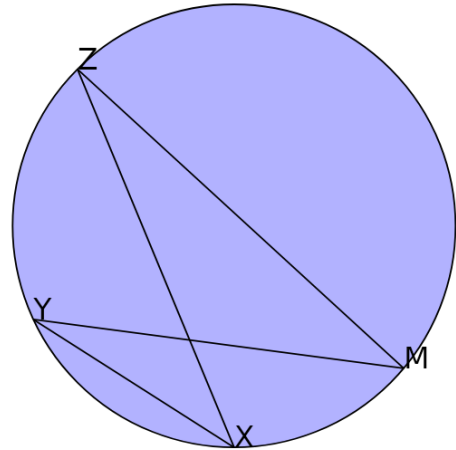
35 What is the length of X?



(not to scale)

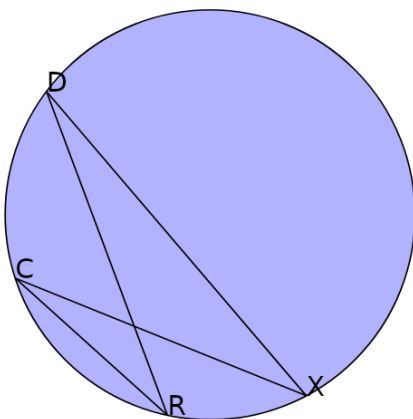
A 72	B 67	C 66
D 63	E 68	

36 What is known about angle ZXY and MZX?



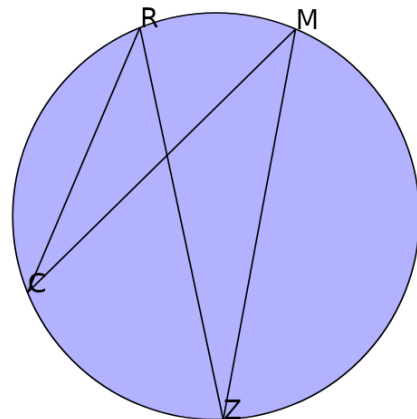
A MYX and MZX add to 360°	B MYX is half MZX	C MYX is the same as MZX
D Nothing, MYX and MZX are not subtended by the same arc	E MYX and MZX add to 180°	F MYX and MZX add to 90°

37 Find angle XCR in degrees given that XDR is 20° and DRC is 27.5°



A 55°	B 95°	C 20°
D 80°	E 70°	F 160°

38 Find angle ZRC in degrees given that ZMC is 35° and MCR is 22.5°

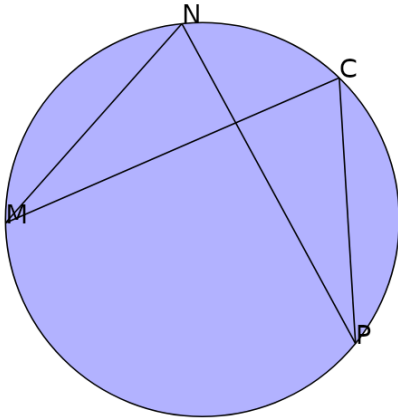


A 125°	B 95°	C 25°
D 35°	E 20°	F 5°



Geometry - Intermediate - Practice

39 Which pairs of angles are known to be the same



A $\angle CPN = \angle PCM$ and $\angle CMN = \angle PCM$

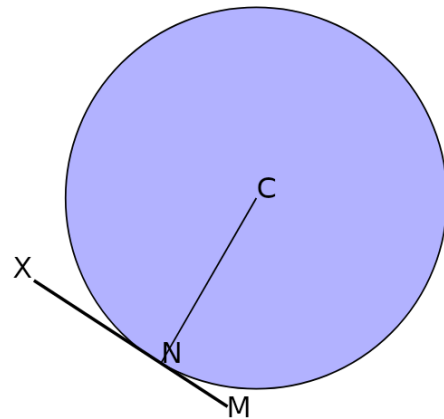
B $\angle PNM = \angle CPN$ and $\angle PCM = \angle CPN$

C $\angle CMN = \angle PCM$ and $\angle CMN = \angle PNM$

D $\angle PNM = \angle PCM$ and $\angle CMN = \angle CPN$

E $\angle PNM = \angle CMN$ and $\angle PNM = \angle CPN$

40 Find angle CNX in degrees given that MX forms a tangent



A 60°

B 75°

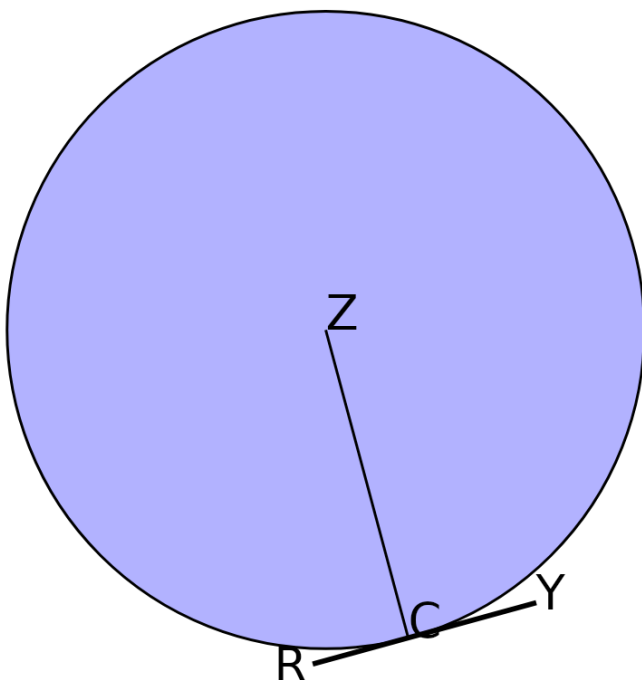
C 15°

D 90°

E 30°

F 105°

41 What is known about angle ZCR given that YR forms a tangent?



A
ZCR is always 60°

B
ZCR is always 180°

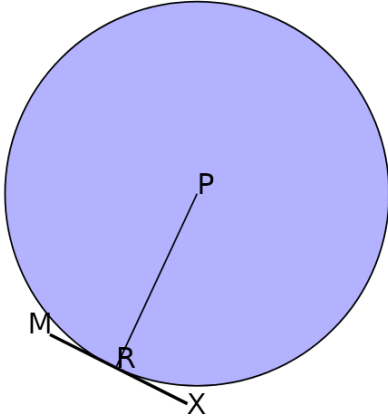
C
ZCR is always 90°

D
ZCR is always 45°



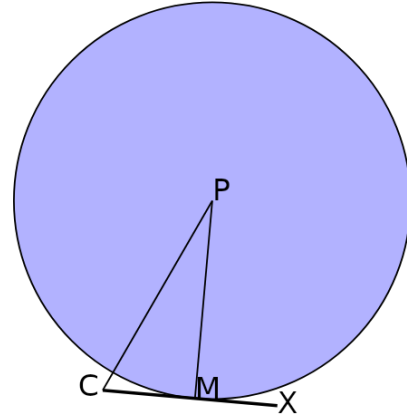
Geometry - Intermediate - Practice

42 Find angle PRM in degrees given that XM forms a tangent



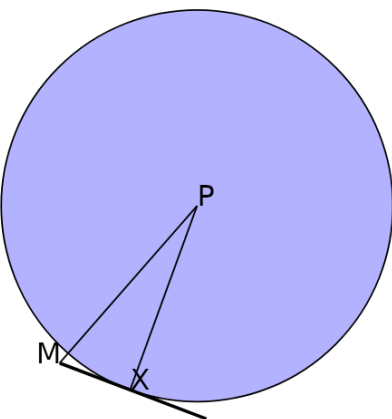
- | | | |
|---------------|---------------|---------------|
| A 45° | B 60° | C 180° |
| D 135° | E 150° | F 90° |

43 What is known about angle MPC and MCP given that XC forms a tangent?



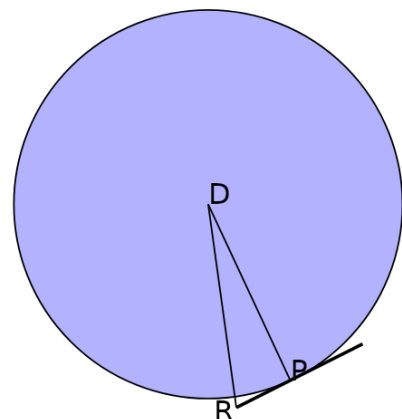
- | | | |
|----------------------------------|--|----------------------------------|
| A MPC is half MCP | B MPC and MCP add to 90° | C MPC is the same as MCP |
| D MPC and MCP add to 180° | E Nothing, MPC and MCP are not subtended by the same arc | F MPC and MCP add to 360° |

44 Find angle XMP in degrees given that XPM is 30°



- | | | |
|--------------|--------------|---------------|
| A 45° | B 15° | C 90° |
| D 75° | E 60° | F 135° |

45 Find angle PDR in degrees given that PRD is 65°

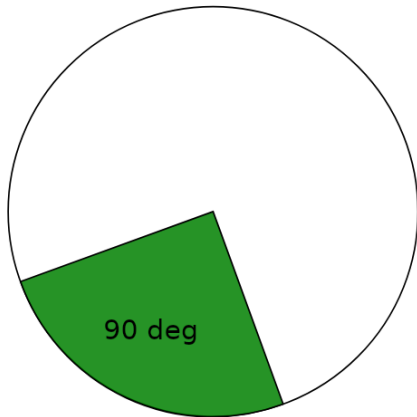


- | | | |
|--------------|---------------|---------------|
| A 50° | B 20° | C 25° |
| D 5° | E 115° | F 100° |



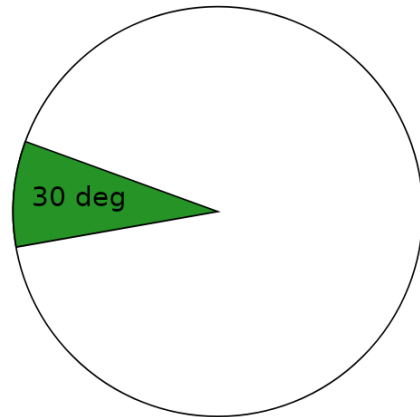
Geometry - Intermediate - Practice

46 If the total area of the circle is 24, what is the area of the shaded sector?



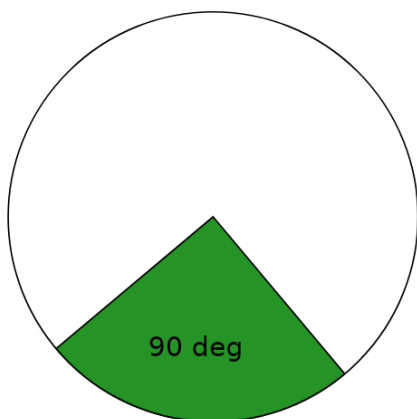
A	8	B	9	C	5
D	2	E	7	F	6

47 If the total area of the circle is 48, what is the area of the shaded sector?



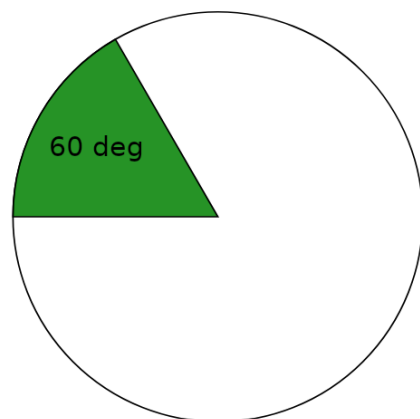
A	4	B	7	C	2
D	3	E	6	F	0

48 If the area of the shaded sector of the circle is 4, what is the total area?

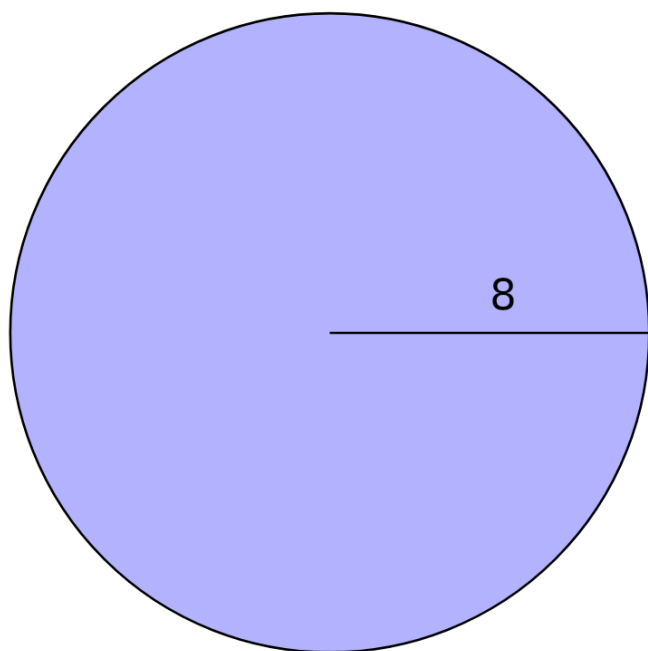


A	13	B	18	C	17
D	16	E	19	F	12

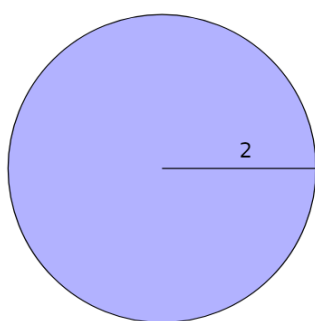
49 If the area of the shaded sector of the circle is 1, what is the total area?



A	3	B	8	C	9
D	5	E	6	F	4

**Geometry - Intermediate - Practice****50** Find the equation that represents the area of this circle

- A $\frac{\pi}{8}$
- B $\pi \cdot \left(\frac{32}{2}\right)^2$
- C $\pi \cdot 8^2$
- D $\pi \cdot 4$

51 Find the equation that represents the area of this circle

- A $\pi \cdot 0$
- B $\pi \cdot \left(\frac{2}{2}\right)^2$
- C $\pi \cdot 4$
- D $\pi \cdot 1$
- E $\frac{\pi}{0}$

52 Given this equation for the area, what is the radius of this circle

$$\pi \cdot 5^2$$

- A $r = 5$
- B $r = 0$
- C $r = 1$
- D $r = 9$
- E $r = 7$
- F $r = 4$

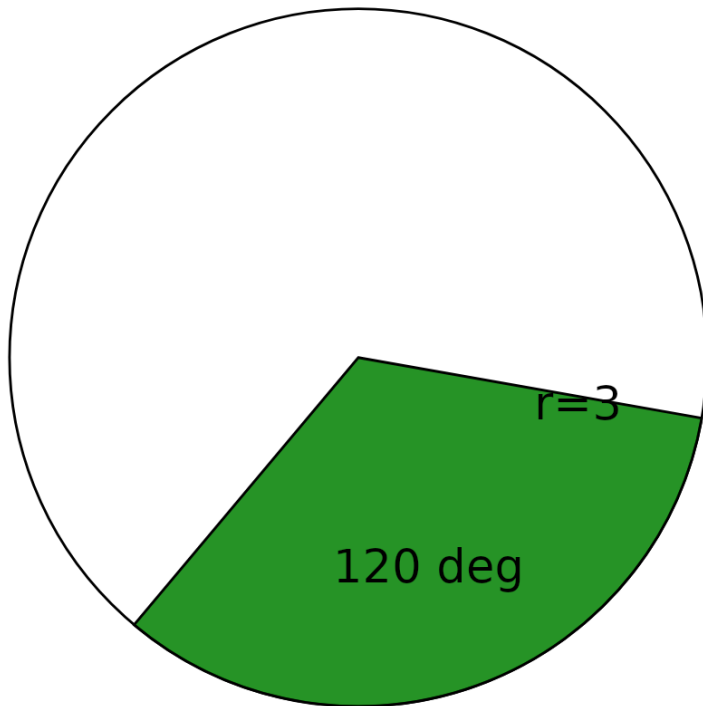
53 Given this equation for the area, what is the radius of this circle

$$\pi \cdot 36$$

- A $r = 10$
- B $r = 8$
- C $r = 2$
- D $r = 6$
- E $r = 4$
- F $r = 7$

**Geometry - Intermediate - Practice**

54 What equation would describe the area of the shaded sector of the circle?



A

$$\frac{9}{\pi \cdot 3}$$

B

$$\frac{\pi \cdot 9}{3}$$

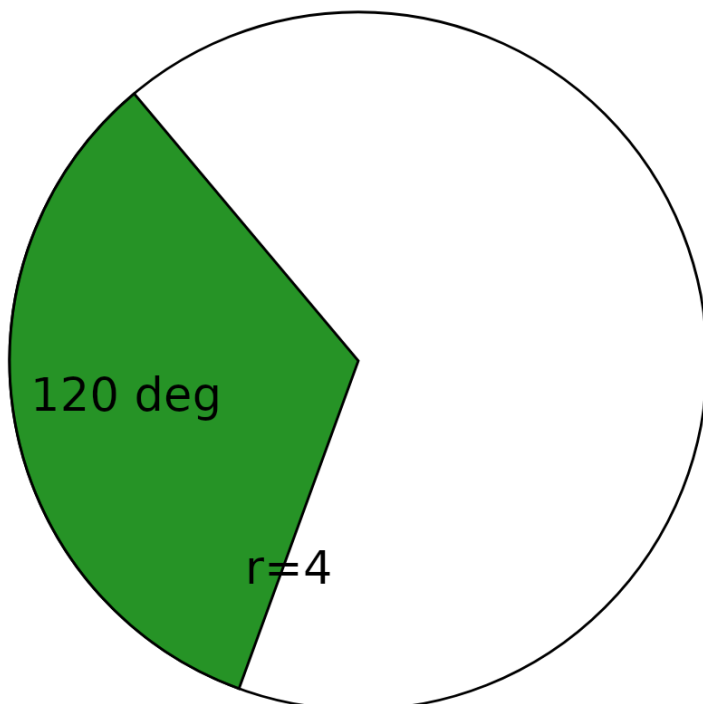
C

$$\frac{\pi^2 \cdot 3}{9}$$

D

$$\frac{3}{\pi \cdot 9}$$

55 What equation would describe the area of the shaded sector of the circle?



A

$$\frac{\pi \cdot 3}{16}$$

B

$$\frac{\pi \cdot 16}{3}$$

C

$$\frac{\pi^2 \cdot 3}{16}$$

D

$$\frac{16}{\pi \cdot 3}$$



Geometry - Intermediate - Practice

- 56** If the area of a sector of a circle is given by this equation, what is the radius of the circle and the sector angle?

$$\frac{\pi \cdot 1}{6}$$

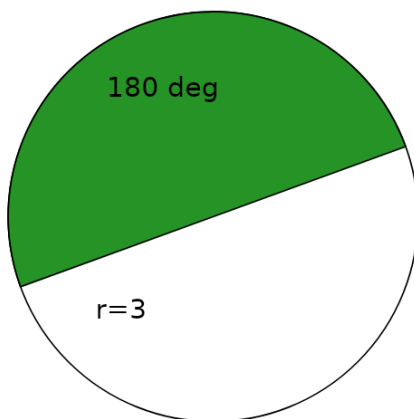
A	r=1, angle=45°	B	r=1, angle=60°
C	r=3, angle=45°	D	r=0, angle=120°
E	r=2, angle=75°	F	r=2, angle=45°

- 57** If the area of a sector of a circle is given by this equation, what is the radius of the circle and the sector angle?

$$\frac{\pi \cdot 49}{12}$$

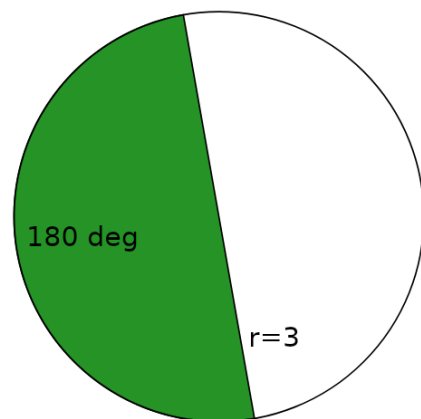
A	r=8, angle=90°	B	r=8, angle=15°
C	r=7, angle=30°	D	r=2, angle=30°
E	r=5, angle=30°	F	r=8, angle=45°

- 58** What is the area of the shaded sector of the circle?



A	16.42	B	15.66	C	17.18
D	11.86	E	14.14	F	14.9

- 59** What is the area of the shaded sector of the circle?



A	17.18	B	11.1	C	14.9
D	10.34	E	12.62	F	14.14