Edulyte

AREA OF A SECTOR OF A CIRCLE FORMULA

A sector of a circle is that part of a circle that is made of the arc of the circle and joining it with the two radii. A sector is the portion of the circle that you can form by the circumference and the radius at the end of the arc. You can compare the size of the sector of a circle to a slice of pizza.

Read more

Q1: What is the formula for calculating the perimeter (arc length) of a sector of a circle?

A: $P = 2\pi r$
B: $P = 2\pi r\theta/360$
C: $P = \pi r^2$
D: $P = \theta/360$

Q2: If the central angle of a sector is 45 degrees, and the radius is 10 cm, what is the perimeter of the sector?

A: 5 cm
B: 10 cm
C: 15 cm
D: 25 cm

Q3: How do you convert an angle measurement from degrees to radians?

A: Multiply by $\pi/180$
B: Multiply by $180/\pi$
C: Divide by $\pi/180$
D: Divide by $180/\pi$

Q4: What is the Area of a sector with a central angle of 30 degrees and a radius of 12 cm?

A: 36.66 cm^2
B: 38.88 cm^2
C: 37.68 cm^2
D: 39.78 cm^2

Q5: What is the Area of a sector with an arc length of 6 cm and a radius of 12 cm?

A: 35 cm^2
B: 36 cm^2
C: 40 cm^2
D: 9 cm^2

Q6: Convert 30 degrees to radians:

A: π/6
B: 2/6
C: π/12
D: π × 12

Q7: What is the Area of a sector with a central angle of 90 degrees and a radius of 20 cm?

A: 310 cm^2
B: 344 cm^2
C: 320 cm^2
D: 314 cm^2

Q8: What is the perimeter of the sector with an angle of 60 degrees and a radius of 10 cm?

A: 30.47 cm
B: 31.22 cm
C: 30.47 cm^2
D: 33 cm

Q9: Identify the example of a sector of a circle:

A: Dice
B: Pizza Slice
C: Square table
D: Bottle

Q10: What is the formula for the area of a circle with respect to arc length?

A: (lr)/2
B: (L)× 2
C: (lr) × 2
D: πr^2

Answers

Q1: B - $P = 2\pi r\theta/360$

Q2: D - 25 cm

Q3: A - Multiply by $\pi/180$

Q4: C - 37.68 cm^2

Q5: B - 36 cm^2

Q6: A - $\pi/6$

Q7: D - 314 cm^2

Q8: C - 30.47 cm^2

Q9: B - Pizza Slice

Q10: A - $(lr)/2$