

# MasterMath



Geometry

## CONCEPT OF $\pi$ AND THE CIRCUMFERENCE OF A CIRCLE



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## CONCEPT OF $\pi$ AND THE CIRCUMFERENCE OF A CIRCLE

3.1415926535897932384626433832795028841971  
 69399375105820979445923078164062862089986  
 28034825342117067982148086512823066470938  
 446095113680401196124210904191694153  
 7019380115661452281124931916127726  
 097564089614824987614288112019  
 0914561329791736072156864561385596  
 60249711622922821520920291739926  
 96282918640140530543663667162946  
 88204685213945510365728756668666  
 595919530914680741131612019  
 462379127147846173083814169591613  
 19491268004494296395208829267317  
 24737190702179860943702770539217176293176  
 752384674818467669405132000568127145263561  
 08277857713427577896091736371787214...

$$\text{Pi} = \pi = 3.14$$



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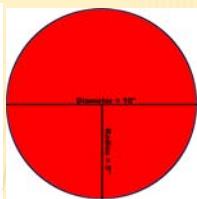
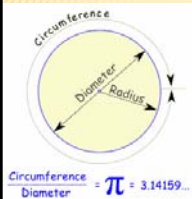
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## CONCEPT OF $\pi$ AND THE CIRCUMFERENCE OF A CIRCLE



$$C = \pi d$$

$$d = 2r$$

$$C = 2\pi r$$

$$C = 3.14 * 10'' = 31.4''$$

$$C = 2 * 3.14 * 5'' = 31.4''$$



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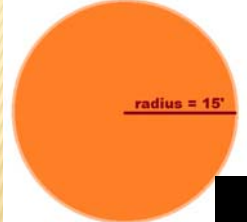
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CONCEPT OF  $\pi$  AND THE CIRCUMFERENCE OF A CIRCLE

Find the Circumference  $C = \pi d$   
 $C = 2\pi r$   
 $\pi = 3.14$



radius = 15'

You Try

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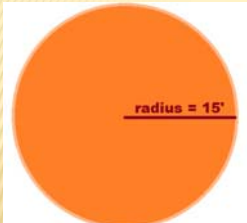
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CONCEPT OF  $\pi$  AND THE CIRCUMFERENCE OF A CIRCLE

Find the Circumference



radius = 15'

$$C = 2\pi r$$
$$= (2)(3.14)(15)$$
$$= 94.2'$$

You Try

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CONCEPT OF  $\pi$  AND THE CIRCUMFERENCE OF A CIRCLE

The Rotunda at the Texas State Capital Building has a radius of 25'. What is the Circumference of the Rotunda?



You Try

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CONCEPT OF  $\pi$  AND THE CIRCUMFERENCE OF A CIRCLE

The Rotunda at the Texas State Capital Building has a radius of 25'. What is the Circumference of the Rotunda?



$$C = \pi d = 2\pi r$$
$$C = 2(3.14) 25$$
$$= 157'$$

You Try

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CONCEPT OF  $\pi$  AND THE CIRCUMFERENCE OF A CIRCLE

The blades on this wind turbine are 12' long. With average wind speeds, the tip of the blade travels at 5' per second. At that speed, how long will it take for the blade to make a complete circle and return to its starting point?



You Try

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CONCEPT OF  $\pi$  AND THE CIRCUMFERENCE OF A CIRCLE

The blades on this wind turbine are 12' long. With average wind speeds, the tip of the blade travels at 5' per second. At that speed, how long will it take for the blade to make a complete circle and return to its starting point?



$$C = 2\pi r$$
$$= 2(3.14)(12')$$
$$\approx 75'$$
$$75' \div 5' \text{ per second} = 15 \text{ seconds}$$

You Try

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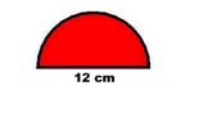
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CONCEPT OF  $\pi$  AND THE CIRCUMFERENCE OF A CIRCLE

Find the perimeter a semi-circle with a diameter of 12 cm.



You Try It!

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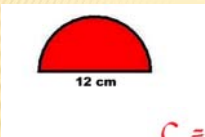
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CONCEPT OF  $\pi$  AND THE CIRCUMFERENCE OF A CIRCLE

Find the perimeter a semi-circle with a diameter of 12 cm.



$$C = \pi d = 3.14 \times 12 = 37.7 \text{ cm}$$

$$\frac{1}{2}C = 37.7 \times \frac{1}{2} = 18.8 \text{ cm}$$

$$\frac{1}{2}C + d = 18.8 + 12 = 30.8 \text{ cm}$$

You Try It!

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CONCEPT OF  $\pi$  AND THE CIRCUMFERENCE OF A CIRCLE

Now, try it on your own. Go to  
[www.MasterMath.info](http://www.MasterMath.info)  
 download

[Concept of  \$\pi\$  and the Circumference of a Circle](#)

from the Worksheets Page, and test your skill. Then see how much you understand by taking the Subject Quiz




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