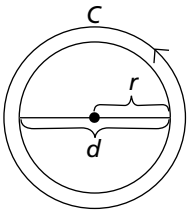
Name: _____ Date: _____

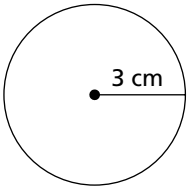
Get Ready

Working With Circles

- $\pi \approx 3.14$ (≈ means approximately equal to)
- **diameter**: the distance across the circle, passing through the centre; $d = 2r$
- **radius**: half the distance across the circle, starting at the centre; $r = \frac{d}{2}$
- **circumference**: the distance around the circle; $C = \pi \times d$ or $C = 2 \times \pi \times r$

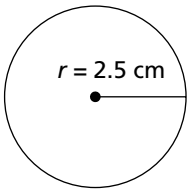


The radius of a circle is 3 cm. Find the circumference.
$C = 2 \times \pi \times r$
$C \approx 2 \times 3.14 \times \mathbf{3}$
$C \approx 18.84$
The circumference is about 18.84 cm.

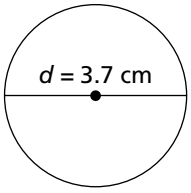


1. Find the circumference of each circle.

a)



b)



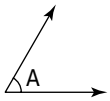
$C = 2 \times \pi \times r$	← Formula →	$C = \pi \times d$
$C \approx 2 \times 3.14 \times$ _____	← Substitute →	_____
$C \approx$ _____ cm	← Solve →	_____

Working With Angles

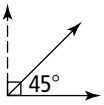
You can estimate the size of an angle by comparing it to a 90º angle.

Estimate ∠A.

∠A is less than 90º.



A 45º angle is half of 90º.



∠A is between 45º and 90º. A reasonable estimate is 55º.
The actual measure of the angle is 60º.

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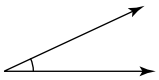
2. Estimate the size of each angle. Then, measure each with a protractor.

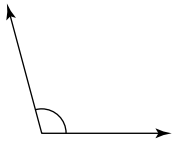
a)



Estimate: _____°

Measurement: _____°

b)

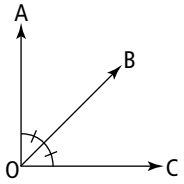


Estimate: _____°

Measurement: _____°

Bisecting Angles

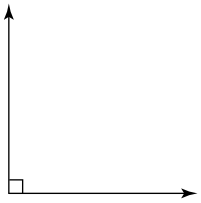
angle bisector
- the line that divides an angle into 2 equal parts
- mark equal angles with the same symbol
- example: OB bisects angle AOC



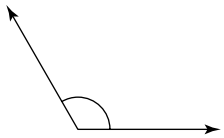
To bisect an angle:
- fold the angle in half
  or
- measure the angle with a protractor and then divide by 2

3. Bisect each angle.

a)

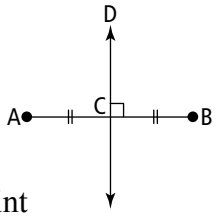


b)



Perpendicular Bisectors

perpendicular bisector
- a line that divides a line segment in half and forms a 90º angle to the line
- example: DC is the perpendicular bisector of AB.



To make a perpendicular bisector:
- fold the line in half and use a right triangle to draw a line from the halfway point
  or
- measure the length of the line, divide by 2, mark the halfway point, and use a right triangle to draw a line from that point

4. Draw the perpendicular bisector for each line segment.

a)

b)