



GRADE 7 · GEOMETRY · HOMEWORK

CIRCUMFERENCE OF A CIRCLE

Today's goal: I can find the circumference of a circle to solve problems, including by using the formula for circumference.



Pick your peppers!

Everyone does Mild & Medium. Then climb as high as you can.



Mild

Tan the Turtle



Medium

Digit the Fox



Spicy

Blaze the Dragon



Extra Spicy

Pi the Owl

WATCH MR DJ SOLVE

Find the circumference of a circle with diameter 9 cm.

1 $C = \pi(9) = 9\pi$ cm.

Answer: **9π cm**



REMEMBER $C = 2\pi r$ from a radius, $C = \pi d$ from a diameter — the same formula, since $d = 2r$.
Backwards: if $C = k\pi$, the diameter is k and the radius is $k \div 2$.



FAMILY CORNER

No need to remember this math yourself! Ask your student to teach you Mr DJ's example, then try the first Mild problem together.



MILD

Tan the Turtle: Slow and steady. Warm up!

1 Find the circumference of a circle with radius 9 cm.

Answer



OOPS ALERT

Careful on #1! The slip Mr DJ sees most: Answered 9π .

**MEDIUM****Digit the Fox:** Stretch your brain.

- 2 Find the circumference of a circle with diameter 18 cm. What do you notice about question 1?

Answer

- 3 Find the circumference of a circle with radius 1.5 m.

Answer

- 4 A circle has circumference 30π cm. Find its radius and diameter.

Answer

**SPICY****Blaze the Dragon:** Bring the heat!

- 5 A circle has radius 5 cm; another has radius 10 cm. How many times longer is the second circumference? Show it.

Answer

- 6 Explain why doubling the radius always doubles the circumference, using the formula.

Answer



EXTRA SPICY

Pi the Owl: Big-brain challenge.

- 7 A student finds the circumference of a circle with diameter 8 cm and answers 16π cm. Find the error and the correct answer.

Answer



How did this sheet feel?



Easy for me



Just right



Made me think

Stuck? Watch Mr DJ explain it

Step-by-step video lessons on YouTube: [youtube.com/@MathWithMrDJ](https://www.youtube.com/@MathWithMrDJ)

Brain break: daily puzzles

Three new math puzzles every day, free: puzzles.mathwithmrdj.com