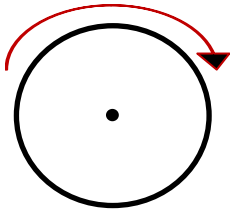
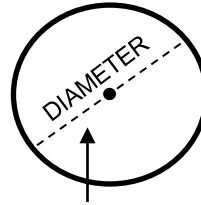


CIRCLES - CIRCUMFERENCE

ANSWERS



THE **CIRCUMFERENCE** OF A CIRCLE IS THE DISTANCE AROUND IT. IT'S THE SAME AS PERIMETER BUT FOR CIRCLES.



THE **DIAMETER** OF A CIRCLE IS THE DISTANCE OF A LINE SEGMENT THAT CONNECTS TWO POINTS ON THE CIRCLE AND PASSES THROUGH THE CENTER.

THE DISTANCE ACROSS THE MIDDLE.

A VERY LONG TIME AGO, PEOPLE OBSERVED THAT CIRCLES OF DIFFERENT SIZES WERE SIMILAR. IF YOU MEASURE THE **CIRCUMFERENCE** OF ANY CIRCLE AND DIVIDE IT BY THE **DIAMETER** OF THE SAME CIRCLE, YOU WILL ALWAYS GET THE SAME ANSWER. THEY CALLED THIS NUMBER "PI" AND USED π AS A SYMBOL.

Circumference \div Diameter = π

or

Circumference = Diameter $\times \pi$

or

Diameter = Circumference $\div \pi$

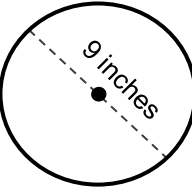
$\pi = 3.141592653589\dots$

π ALWAYS EQUALS THIS NUMBER.

YOU CAN APPROXIMATE π TO **3.14** TO MAKE YOUR LIFE EASIER, BUT YOUR ANSWER WILL NOT BE EXACT. IT WILL BE A GOOD ESTIMATE.

Helpful Examples

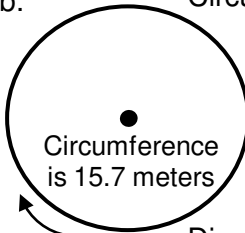
a. Circumference \div Diameter = π
 Circumference \div 9 in = 3.14



NOW SOLVE FOR THE CIRCUMFERENCE.

Circumference = 9 \times 3.14
 Circumference = **28.26**

b. Circumference \div Diameter = π
 15.7 m \div Diameter = 3.14

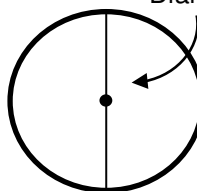


NOW SOLVE FOR THE DIAMETER.

Diameter = 15.7 \div 3.14
 Diameter = **5**

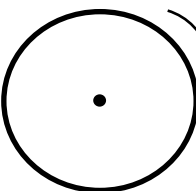
Now your turn. Find the missing Circumference or Diameter for each circle.

1. Diameter = 15 cm



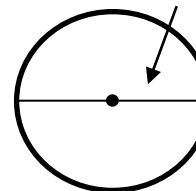
Circumference = 47.1

2. Circumference = 314 feet



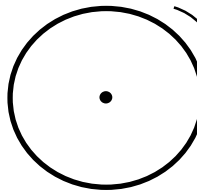
Diameter = 100

3. Diameter = 30 yd



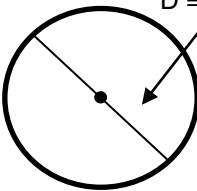
Circumference = 94.2

4. Circumference = 25.12 km



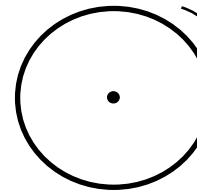
Diameter = 8

5. D = 41 miles



Circumference = 128.74

6. C = 6.28 mm



Diameter = 2