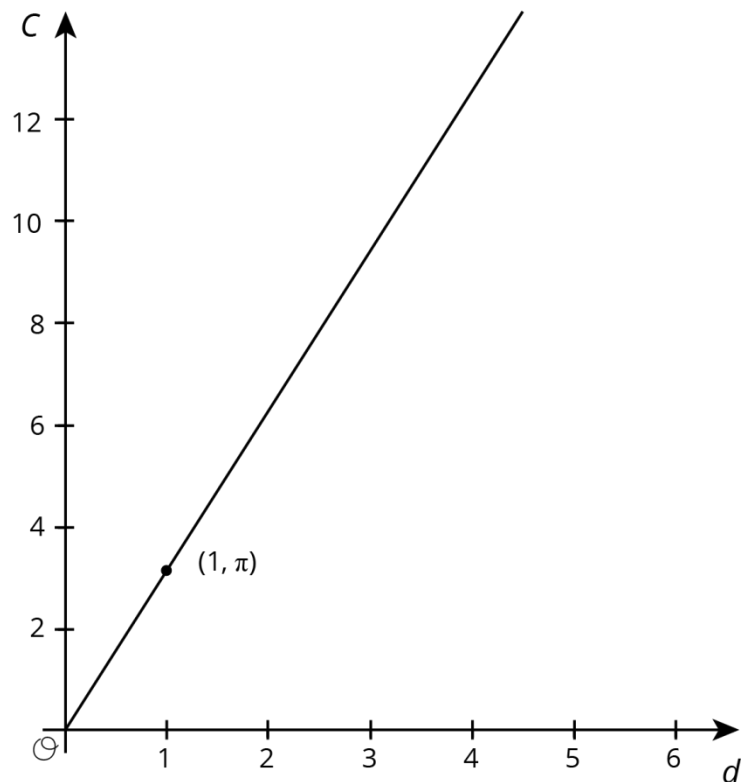


### Lesson 3 Summary

There is a proportional relationship between the diameter and circumference of any circle. That means that if we write  $C$  for circumference and  $d$  for diameter, we know that  $C = kd$ , where  $k$  is the constant of proportionality.

The exact value for the constant of proportionality is called  $\pi$ . Some frequently used approximations for  $\pi$  are  $\frac{22}{7}$ , 3.14, and 3.14159, but none of these is exactly  $\pi$ .



We can use this to estimate the circumference if we know the diameter, and vice versa. For example, using 3.1 as an approximation for  $\pi$ , if a circle has a diameter of 4 cm, then the circumference is about  $(3.1) \cdot 4 = 12.4$  or 12.4 cm.

The relationship between the circumference and the diameter can be written as

$$C = \pi d$$

### Lesson 3 Glossary Terms

- pi ( $\pi$ )