

### 8-5: Solve Problems Involving Circumference of a Circle

1. Sample answer: The circumference can be found by multiplying the diameter by  $\pi$ . The circumference of a circle is about 3.14 times as long as its diameter. 18.75  
19.428.
2. No; Since all circles have the same shape, the relationship between the diameter and circumference for any circle is always the same.
3. No; Sample answer: The  $\frac{22}{7}$  represents an approximate value of  $\pi$ . Therefore, the circumference is an approximate value.
4. About 31.4 inches.
5. About 3.5 feet
6. About 807 full revolutions
7.  $7\pi$  cm
8. 62.83 ft
9.  $24\pi$  mi
10. 59.66 cm
11. 8.6 cm
12. 3,082.2 ft
13. 18.86 feet
14. 1:6.28
15. About 4.25 cm
16. 28.8 inches
17. D