

Worksheet: Circumference of a Circle and Its Application



Q1: A cylinder-shaped jar of jam has a circular base of radius 7. Use $\frac{22}{7}$ as an approximation of π to calculate the perimeter of the base.



Question Video

A 44

B 88

C 11

D 22

E 14

Q2: A cylinder-shaped jar of jam has a circular base of radius 14. Use $\frac{22}{7}$ as an approximation of π to calculate the perimeter of the base.



Question Video

A 88

B 176

C 22

D 44

E 28

Q3: Given that the diameter of a flower is 10 centimeters, use a calculator to determine the circumference of the flower, taking $\frac{22}{7}$ for π .

A $\frac{110}{7}$ cm

B $\frac{220}{7}$ cm

C $\frac{440}{7}$ cm

D $\frac{660}{7}$ cm

E $\frac{55}{7}$ cm

Q4: Find the circumference of a circular pizza with a diameter of 33 inches. Round to the nearest tenth

A 855.3 in

B 103.7 in

C 51.8 in

D 3,421.2 in

E 207.3 in



Question Video

Q5: Find the circumference of a circular pizza with a diameter of 12 inches.

Round to the nearest tenth

- A 113.1 in
- B 37.7 in
- C 18.8 in
- D 452.4 in
- E 75.4 in



Question Video

Q6: There are two circular paths to walk on a local hiking trail. Given that one path has a diameter of 168 yards, and the other path has a radius of 50 yards, find, to the nearest tenth, how much farther a person can walk on the longer path.

- A 841.9 yd
- B 213.6 yd
- C 527.8 yd
- D 370.7 yd
- E 314.2 yd

Q7: There are two circular paths to walk on a local hiking trail. Given that one path has a diameter of 348 yards, and the other path has a radius of 96 yards, find, to the nearest tenth, how much farther a person can walk on the longer path.

A 1,696.5 yd

B 490.1 yd

C 1,093.3 yd

D 791.7 yd

E 603.2 yd

Q8: The Noah family has a circular swimming pool with a radius of 25 feet. They built a 6-foot-wide deck around the entire pool. What is the circumference of the deck, rounded to the nearest tenth?

A 157.1 ft

B 119.4 ft

C 97.4 ft

D 194.8 ft

E 37.7 ft

Q9: The Ethan family has a circular swimming pool with a radius of 25 feet. They built a 5-foot-wide deck around the entire pool. What is the circumference of the deck, rounded to the nearest tenth?

A 157.1 ft

B 125.7 ft

C 94.2 ft

D 188.5 ft

E 31.4 ft

Q10: What distance does a 14 cm diameter wheel cover after 90 turns? Use $\frac{22}{7}$ to approximate π .

A 1,980 cm

B 3,960 cm

C 7,920 cm

D 44 cm

Q11: What distance does a 40 cm diameter wheel cover after 100 turns? Use 3.14 to approximate π .

A 6,280 cm

B 12,560 cm

C 4,000 cm

D 25,120 cm

E 125.6 cm

Q12: Each wheel on Sophia's car has a diameter of 18 inches. Which expression could be used to find the circumference of the wheel?

A $9 \times 9 \times \pi$

B $2 \times 9 \times \pi$

C $9 \times 18 \times \pi$

D $2 \times 18 \times \pi$

E $18 \times 18 \times \pi$

Q13: The tire on Liam's bike has a radius of 30 inches. Which of the following equations gives the circumference of the tire in inches?

A $C = \pi \cdot 30$

B $C = \pi \cdot 15$

C $C = \pi \cdot 60 \cdot 2$

D $C = 60$

E $C = \pi \cdot 60$

Q14: Mr. Michael is putting up a fence around his circular backyard of diameter 8 feet. Determine, to the nearest tenth, how long the fence should be.

A 12.6 ft

B 25.1 ft

C 50.3 ft

D 50.3 ft

E 201.1 ft

Q15: A factory is producing plates with a diameter of 10 inches. They plan on putting a silver edge on each plate. Determine, to the nearest tenth, how much silver edging is needed for each plate by finding the circumference of each plate.

A 15.7 in

B 62.8 in

C 78.5 in

D 31.4 in

E 314.2 in

Q16: A factory is producing plates with a diameter of 12 inches. They plan on putting a silver edge on each plate. Determine, to the nearest tenth, how much silver edging is needed for each plate by finding the circumference of each plate.

A 18.8 in

B 75.4 in

C 113.1 in

D 37.7 in

E 452.4 in

Q17: Mr Mohammed has a circular garden with a diameter of 107 feet surrounded by fencing. Using the same length of fencing, he is going to create a square garden. What is the maximum side length of the square? Round the result to one decimal place.



Question Video

A 168.1 ft

B 18.3 ft

C 336.2 ft

D 94.8 ft

E 84.0 ft

Q18: Mr Mohammed has a circular garden with a diameter of 113.5 feet surrounded by fencing. Using the same length of fencing, he is going to create a square garden. What is the maximum side length of the square? Round the result to one decimal place.



Question Video

A 178.3 ft

B 18.9 ft

C 356.6 ft

D 100.6 ft

E 89.1 ft

Q19: A circular road has a diameter of $\frac{3}{5}$ miles. Determine, to the nearest tenth, the distance a car will cover if it goes around the road once.

A 3.8 mi

B 1.1 mi

C 0.9 mi

D 1.9 mi

E 0.3 mi

Q20: A circular road has a diameter of $\frac{3}{4}$ miles. Determine, to the nearest tenth, the distance a car will cover if it goes around the road once.

A 4.7 mi

B 1.8 mi

C 1.2 mi

D 2.4 mi

E 0.4 mi

Q21: A dime has a radius of $8\frac{1}{2}$ millimeters. Find the circumference of a dime to the nearest tenth.

A 26.7 mm

B 53.4 mm

C 227.0 mm

D 113.5 mm

E 13.4 mm

Q22: Jacob is walking on a circular path whose diameter is 4 miles. If Jacob walks about 3 miles an hour, find how many hours it will take him to complete the path, rounded to the nearest hour.

A 1 h

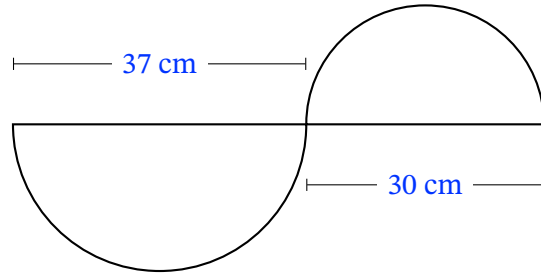
B 3 h

C 2 h

D 8 h

E 4 h

Q23: A piece of wire is bent to form the shape shown in the figure. Using 3.14 in place of π , how long is the wire?



- A 67 cm
- B 172.19 cm
- C 277.38 cm
- D 105.19 cm

Q24: A row of lamps is placed along the outer edge of a circular chandelier of radius $3\frac{1}{8}$ feet. Determine the length of the row of lamps to the nearest tenth.

- A 19.6 ft
- B 30.7 ft
- C 6.2 ft
- D 9.8 ft

Q25: A wire fence surrounds a circular garden. If the area of the garden is 154 and the fence cost 19 pounds per metre, how much is the fence? (Use $\frac{22}{7}$ to approximate π .)

A 836 LE

B 418 LE

C 2926 LE

D 1672 LE