

Geometry and Measurement Practice Problems

Mathematics · Answer Key · 33 Questions

1. What is the accuracy required for rounding in problem 1?

- A) 100 meters
- B) 10 meters
- C) 1000 meters**
- D) 1 meter

2. Which of the following is an exact value?

- A) The number of seats in the Riksdag**
- B) Melina's height
- C) The population of Denmark
- D) Lykke paying with a 500-kronor bill

3. If a pack of two t-shirts costs 289 kr, what is the estimated price of one t-shirt?

- A) 145 kr**
- B) 144.50 kr
- C) 150 kr
- D) 140 kr

4. Convert 750 cm to meters.

- A) 7.5 m**
- B) 0.75 m
- C) 75 m
- D) 7500 m

5. Calculate the perimeter of the figure.

- A) 11.1 cm**
- B) 11.1 cm
- C) 11 cm
- D) 11.2 cm

6. Calculate the area of the parallelogram.

- A) 1700 m²**
- B) 170 m²
- C) 17000 m²
- D) 17 m²

7. Calculate the area of the triangle.

A) 12 cm²

B) 120 cm²

C) 6 cm²

D) 1.2 cm²

8. Calculate the area of the polygon.

A) 6.5 cm²

B) 65 cm²

C) 650 cm²

D) 0.65 cm²

9. What is the side length of a square with an area of 49 cm²?

A) 7 cm

B) 24.5 cm

C) 12.25 cm

D) 2401 cm

10. Calculate the hypotenuse of a right-angled triangle with legs of 9 and 12.

A) 15

B) 21

C) 180

D) 225

11. Calculate the unknown leg of a right-angled triangle if the hypotenuse is 50 and one leg is 48.

A) 14

B) 12

C) 98

D) 2500

12. Calculate the ratio between the circumference and diameter of a pipe with a circumference of 15 cm and a diameter of 4.8 cm, rounded to two decimal places.

A) 3.13

B) 3.125

C) 3.14

D) 3.12

13. Calculate the circumference of a circle with a radius of 14 cm.

A) 87.96 cm

B) 43.98 cm

C) 28 cm

D) 27.99 cm

14. Calculate the area of a circle with a radius of 8.8 cm.

A) 246.30 cm²

B) 4.4 cm²

C) 25.64 cm²

D) 4.4 cm

15. Calculate the radius of a circle with an area of 12.0 m².

A) 1.95 m

B) 3.89 m

C) 1.09 m

D) 0.97 m

16. Calculate the circumference of a circle with a diameter of 45 cm.

A) 141.37 cm

B) 70.69 cm

C) 22.5 cm

D) 45 cm

17. Calculate the arc length of a 100° arc on a circle with a diameter of 82 cm.

A) 71.77 cm

B) 143.54 cm

C) 257.61 cm

D) 82 cm

18. Calculate the area of a sector with a radius of 25 cm and a central angle of 85°.

A) 552.91 cm²

B) 1178.10 cm²

C) 106.25 cm²

D) 85 cm²

19. Calculate the area of a cross-section of a tree with a circumference of 87 cm.

A) 604.5 cm²

B) 1209 cm²

C) 19.4 cm²

D) 38.7 cm²

20. On what area can a dog move if it's tethered to a wall with a 7.0 m rope?

- A) 49 m²
- B) 153.9 m²**
- C) 38.5 m²
- D) 154 m²

21. Calculate the area of a regular hexagon with a side length of 44 cm.

- A) 1284.3 cm²
- B) 75.4 cm²
- C) 6338.9 cm²**
- D) 12677.8 cm²

22. How far does a car travel when its 70 cm diameter tire spins 4,000 revolutions?

- A) 8.8 km**
- B) 88 km
- C) 880 km
- D) 0.88 km

23. What is the area of a square with a side length of 5.0 cm?

- A) 25 cm²**
- B) 10 cm²
- C) 20 cm²
- D) 5 cm²

24. Calculate the area of the colored region (a circle inside a square).

- A) 19.63 cm²
- B) 5.37 cm²**
- C) 25 cm²
- D) 14.63 cm²

25. Calculate the circumference of a circle with a radius of 11.8 cm.

- A) 74.1 cm**
- B) 23.6 cm
- C) 37.07 cm
- D) 137.4 cm

26. Calculate the area of a circle with a radius of 6.0 m. If the radius increases by 3.0 m, how much does the area increase?

- A) 28.27 m²
- B) 63.62 m²
- C) 94.25 m²**
- D) 35.34 m²

27. Calculate the area of the colored region.

A) 10.18 cm²

B) 3.14 cm²

C) 6.28 cm²

D) 2.0 cm²

28. Calculate the area of the part of the ceramic stove outside the circles.

A) 2720 cm²

B) 1360 cm²

C) 1450 cm²

D) 59 cm²

29. How long does it take for the Earth to complete one orbit around the Sun if the distance is 150,000,000 km and the speed is approximately 30 km/s?

A) 5,000,000 seconds

B) 50,000,000 seconds

C) 5,000,000 minutes

D) 5,000,000 hours

30. Calculate the area of the yellow region in a wrestling mat.

A) 10.1 m²

B) 70.8 m²

C) 101 m²

D) 110 m²

31. What is the area of a parallelogram with a base of 4.5 cm and a height of 2.8 cm?

A) 12.6 cm²

B) 7.3 cm²

C) 12 cm²

D) 13 cm²

32. Calculate the area of a trapezoid with parallel sides of 4.1 cm and 4.5 cm, and a height of 2.8 cm.

A) 12.04 cm²

B) 12 cm²

C) 15.96 cm²

D) 8.6 cm²

33. Calculate the area of a polygon.

A) 163400 m²

B) 160000 m²

C) 16 ha

D) 160 ha