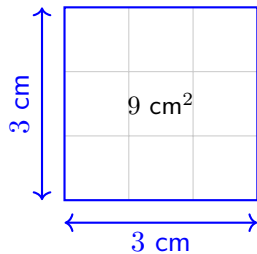


Circles: Area, Squaring & Pi

Starter (1 of 3)



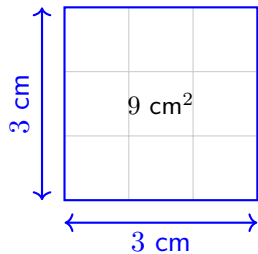
1. $4 \times 4 = ?$

2. $7 \times 7 = ?$

3. $10^2 = ?$

4. $3^2 = ?$

Starter (1 of 3)



1. $4 \times 4 = 16$

2. $7 \times 7 = 49$

3. $10^2 = 100$

4. $3^2 = 9$

Starter (2 of 3)

5. 2×6 and 6^2 — are these the same?

6. $3.14 \times 9 = \underline{\hspace{2cm}}$

7. $3.14 \times 25 = \underline{\hspace{2cm}}$

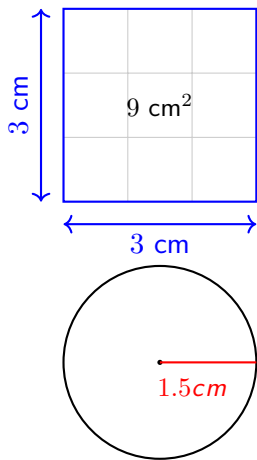
Starter (2 of 3)

5. 2×6 and 6^2 — are these the same? No: $12 \neq 36$.

6. $3.14 \times 9 = 28.26$

7. $3.14 \times 25 = 78.5$

Starter (3 of 3)



- koło średnica
7. A circle has **diameter** 14 cm. Find:

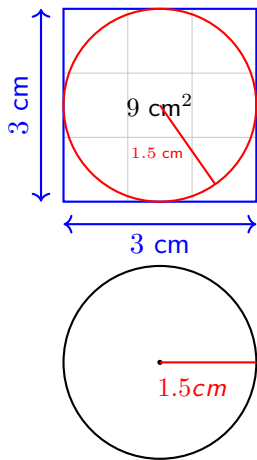
- promień
- (a) the **radius** _____
- obwód
- (b) the **circumference** _____.

($\pi \approx 3.14$)

- koło promień
8. A circle has **radius** 5 cm. What is the
- obwód
- circumference? _____

- kwadrat pole
9. The **square** has side 3 cm and **area** 9
- koło promień
- cm². A circle has **radius** 1.5 cm. Is
- koło pole
- the **circle's area** more or less than 9 cm²?

Starter (3 of 3)



- koło średnica
7. A circle has **diameter** 14 cm. Find:
promień

- (a) the **radius** 7 cm
obwód
- (b) the **circumference** 43.96 cm.

($\pi \approx 3.14$)

- koło promień
8. A circle has **radius** 5 cm. What is the
obwód
circumference? 31.4 cm

- kwadrat pole
9. The **square** has side 3 cm and **area** 9
cm². A circle has **radius** 1.5 cm. Is
koło promień
koło pole
the **circle's area** more or less than 9 cm²?

Starter (1 of 3)

1. Halve 12 cm ____ 2. Halve 9.4 cm

3. $6^2 = ?$

Starter (1 of 3)

1. Halve 12 cm 6 cm 2. Halve 9.4 cm
4.7 cm

3. $6^2 = 36$

Starter (2 of 3)

4. $1.5^2 = ?$

5. $3 \times 4^2 = \underline{\hspace{1cm}}$

6. True or false? $\pi \times (2r) = 2 \times \pi \times r$

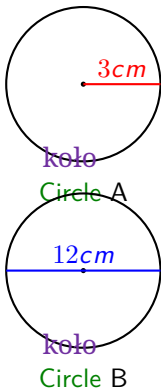
Starter (2 of 3)

4. $1.5^2 = 2.25$

5. $3 \times 4^2 = 48$

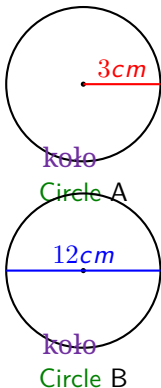
6. True or false? $\pi \times (2r) = 2 \times \pi \times r$ True

Starter (3 of 3)



- koło
7. Consider circle A
- obwód
- (a) What is the circumference? _____
- pole
- (b) What is the area? _____
- koło
8. Consider circle B
- obwód
- (a) What is the circumference? _____
- pole
- (b) What is the area? _____
- stosunek obwody
9. Is the ratio of the circumferences of
- koła
- circle's A and B the same as the
- stosunek pola
- ratio of the areas?

Starter (3 of 3)



koło

7. Consider circle A

obwód

(a) What is the circumference? 18.84 cm

pole

(b) What is the area? 28.26 cm²

koło

8. Consider circle B

obwód

(a) What is the circumference? 37.68 cm

pole

(b) What is the area? 113.04 cm²

stosunek

obwody

9. Is the ratio of the circumferences of
koła

circle's A and B the same as the

stosunek

pola

ratio of the areas? No: 1 : 2 vs 1 : 4

Starter (1 of 3)

1. $5 \times 5 = ?$

2. $8^2 = ?$

3. $2.5^2 = ?$

Starter (1 of 3)

1. $5 \times 5 = 25$

2. $8^2 = 64$

3. $2.5^2 = 6.25$

Starter (2 of 3)

4. $3.14 \times 9 = \underline{\hspace{2cm}}$

5. ^{pole}Area of a 7 cm $\times$ 4 cm ^{prostokąt}rectangle =?

6. What ^{ułamek}fraction of 360° is 90° ?

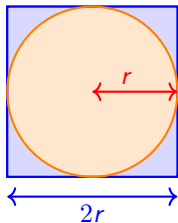
Starter (2 of 3)

4. $3.14 \times 9 = 28.26$

5. ^{pole}Area of a 7 cm $\times$ 4 cm ^{prostokąt}rectangle = 28 cm^2

6. ^{ułamek}What fraction of 360° is 90° ? $\frac{1}{4}$

Starter (3 of 3)

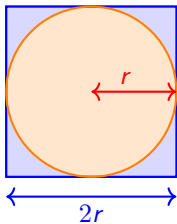


7. Write an **wyrażenie** **expression** for the **pole** **area** of the **koło** **circle** in the picture

8. Write an **wyrażenie** **expression** for the **pole** **area** of the shaded blue region in the picture

9. If the **kwadrat** **square** has a **obwód** **perimeter** of 48cm, what is the **pole** **area** of the shaded blue region?

Starter (3 of 3)



- wyrażenie pole
7. Write an **expression** for the **area** of the **koło** **circle** in the picture πr^2

- wyrażenie pole
8. Write an **expression** for the **area** of the shaded blue region in the picture $4r^2 - \pi r^2$

- kwadrat obwód
9. If the **square** has a **perimeter** of 48cm, what is the **area** of the shaded blue region? 30.96 cm^2

Starter (1 of 3)

1. $9^2 = ?$

2. $3.5^2 = ?$

3. 3.14×16

4. 3.14×49

Starter (1 of 3)

1. $9^2 = 81$

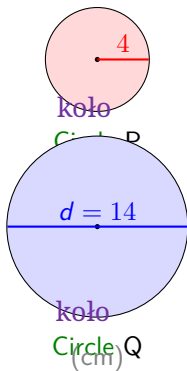
2. $3.5^2 = 12.25$

3. $3.14 \times 16 = 50.24$

4. $3.14 \times 49 = 153.86$

Starter (2 of 3)

5. Halve 14 cm. Then
podnieś do kwadratu
square your answer.

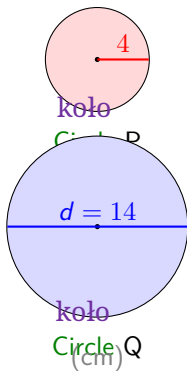


6. A kwadrat pole
square has area 64 cm^2 . What is its
side length ?

7. Spot the mistake: koło
“Circle Q has
średnica pole
diameter 14 cm, so its area is
 $\pi \times 14^2 \approx 615 \text{ cm}^2$.” What error was

made? Write the correct solution

Starter (2 of 3)



5. Halve 14 cm. Then
podnieś do kwadratu
square your answer. 7

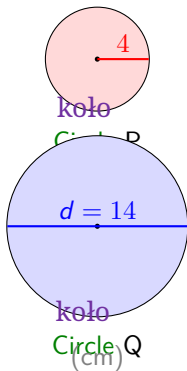
cm, so 49 cm^2

6. A kwadrat pole
square has area 64 cm^2 . What is its
side length 8 cm

7. Spot the mistake: koło
“Circle Q has
średnica pole
diameter 14 cm, so its area is
 $\pi \times 14^2 \approx 615 \text{ cm}^2$.” What error was

made? Write the correct solution. Used ↺ ↻ ↶ ↷

Starter (3 of 3)



- koło promień
8. **Circle P**, radius 4 cm. Find: (a) the pole obwód
area _____ (b) the circumference

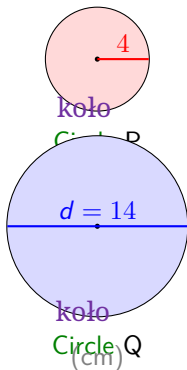
_____.

- koło średnica
9. **Circle Q**, diameter 14 cm. Find: (a) the pole obwód
area _____ (b) the circumference

_____.

- pole
10. Which has the greater area, P or Q? By
approximately how many cm^2 ?

Starter (3 of 3)



- koło promień
8. **Circle P**, radius 4 cm. Find: (a) the pole obwód
area 50.24 cm^2 (b) the circumference

25.12 cm.

- koło średnica
9. **Circle Q**, diameter 14 cm. Find: (a) the pole obwód
area 153.86 cm^2 (b) the circumference

43.96 cm.

10. Which has the greater area, P or Q? By pole
- approximately how many cm^2 ? Q, by

approximately 103.62 cm^2 .