Using Formulas

Using the given formulas, find the unknown value.

Use 3.14 for π. Round to the nearest hundredth if necessary.

1) What is the perimeter of a rectangle with a base of 120 mm and a height of 145 mm?

Find the formula for the _____ of a _____.

Copy the formula:

Plug in the known values:

Use PEMDAS to find the unknown value:

State your answer with the correct units:

2) What is the area of a parallelogram with a base of 8 yards and a height of 10 yards?

Find the formula for the _____ of a _____.

Copy the formula:

Plug in the known values:

Use PEMDAS to find the unknown value:

State your answer with the correct units:

3) What is the area of a triangle with a base of 7 m and a height of 8 m?

Find the formula for the _____ of a _____.

Copy the formula:

Plug in the known values:

Use PEMDAS to find the unknown value:

State your answer with the correct units:

4) What is the circumference of a circle with a radius of 4 inches?

Find the formula for the _____ of a _____.

Copy the formula:

Plug in the known values:

Use PEMDAS to find the unknown value:

State your answer with the correct units:

5) What is the area of a circle with a diameter of 7 cm.

Find the formula for the _____ of a _____.

Copy the formula:

Plug in the known values:

Use PEMDAS to find the unknown value:

State your answer with the correct units:

6) What is the volume of a rectangular prism with a length of 8 m, width of 9 m, and height of 6 m?

Find the formula for the _____ of a _____.

Copy the formula:

Plug in the known values:

Use PEMDAS to find the unknown value:

State your answer with the correct units:

7) What is the volume of a cylinder with a radius of 10 cm and a height of 12 cm?

Find the formula for the _____ of a _____.

Copy the formula:

Plug in the known values:

Use PEMDAS to find the unknown value:

State your answer with the correct units:

8) What is the volume of a sphere with a radius of 9 ft.?

Find the formula for the _____ of a _____.

Copy the formula:

Plug in the known values:

Use PEMDAS to find the unknown value:

State your answer with the correct units:

9) What is the volume of a cone with a diameter of 6 cm and a height of 12 cm?

Find the formula for the _____ of a _____.

Copy the formula:

Plug in the known values:

Use PEMDAS to find the unknown value:

State your answer with the correct units:

10) What is the surface area of a cylinder with a radius of 5 ft. and a height of 8 ft.?

Find the formula for the _____ of a _____.

Copy the formula:

Plug in the known values:

Use PEMDAS to find the unknown value:

State your answer with the correct units:

11) What is the surface area of a sphere with a diameter of 8 in?

Find the formula for the _____ of a _____.

Copy the formula:

Plug in the known values:

Use PEMDAS to find the unknown value:

State your answer with the correct units:

PERIMETER

PERIMETER FORMULAS

perimeter = distance around

square . . . . $P = 4s$

rectangle . . . . $P = 2b + 2h$
OR
$P = 2l + 2w$

triangle . . . . $P = a + b + c$

AREA

AREA FORMULAS

square . . . . $A = s \times s$

rectangle . . . . $A = bh$
OR
$A = lw$

parallelogram . . . . . $A = bh$

triangle . . . . $A = \frac{1}{2}bh$

circle . . . . $A = \pi r^2$

SURFACE AREA

TOTAL SURFACE AREA (SA) FORMULAS

right rectangular prism . . . . . $SA = 2(lw) + 2(hw) + 2(lh)$

right circular cylinder . . . . . . $SA = 2\pi r^2 + 2\pi rh$

sphere . . . . $SA = 4\pi r^2$

CIRCLES

$C = 2\pi r$

circumference

CIRCLE FORMULAS

area . . . . $A = \pi r^2$

circumference . . . . . $C = 2\pi r$
OR
$C = \pi d$

Area
$A = \pi r^2$

VOLUME

VOLUME FORMULAS

rectangular prism . . . . . $V = lwh$

sphere . . . . $V = \frac{4}{3}\pi r^3$

cone . . . . $V = \frac{1}{3}\pi r^2 h$

right circular cylinder . . . . . . $V = \pi r^2 h$