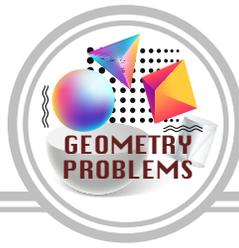


Geometry Problems

Area and Perimeter of Simple 2D Shapes

Parallelogram and Rhombus

Math Worksheet 19



Name: _____

Answer the following. Show your solutions.



$$A = \frac{d1 \cdot d2}{2}$$

A = Area
d1, d2 = diagonals

$$A = b \times h$$

A = Area
b = base
h = height

$$P = 4 \cdot (a)$$

P = Perimeter
a = length of any side



$$A = b \times h$$

A = Area
b = base
h = height

$$P = 2 \cdot (a+b)$$

P = Perimeter
a = side length
b = base length

A rhombus has an area of 56 m^2 and height of 7 m . Find the base length and perimeter.

Fun Fact:
All rhombuses are parallelograms, but all parallelograms are not rhombuses.



$$A = b \times h$$

$$56 = b \times 7$$

$$56 \div 7 = b$$

$$8 = b$$

8 m

base length

$$P = 4 \cdot (a)$$

$$= 4 \cdot (8)$$

$$= 32$$

32 m

Perimeter

Calculate the area and perimeter of a parallelogram if the side length measures 47 in , base length is 68 in , and height is 41 in .

Area

Perimeter

The length of the longer diagonal of a rhombus is 12 mm , while the shorter diagonal measures 10.7 mm . Calculate its area and perimeter if its base length is 8 mm .

Area

Perimeter

The area of a parallelogram is 3000 yd^2 . Find the height and perimeter if its base length is 155 yd , and side length is 117 yd .

height

Perimeter

The area and base length of a rhombus are 388 in^2 and 20 in respectively. Solve for its height and perimeter.

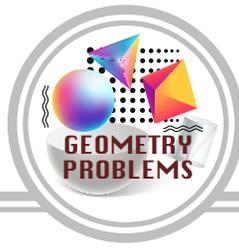
height

Perimeter

Find the base length and area of a parallelogram if its perimeter measures 1888 cm , side length is 40.33 cm , and height is 20 cm .

base length

Area



Answer the following. Show your solutions.



$$A = \frac{d1 (d2)}{2}$$

A = Area
d1, d2 = diagonals

$$A = b \times h$$

A = Area
b = base
h = height

$$P = 4 (a)$$

P = Perimeter
a = length of any side



$$A = b \times h$$

A = Area
b = base
h = height

$$P = 2 (a + b)$$

P = Perimeter
a = side length
b = base length

A rhombus has an area of 56 m² and height of 7 m. Find the base length and perimeter.



$$A = b \times h$$

$$56 = b \times 7$$

$$56 \div 7 = b$$

$$8 = b$$

8 m

base length

$$P = 4 (a)$$

$$= 4 (8)$$

$$= 32$$

32 m

Perimeter

Calculate the area and perimeter of a parallelogram if the side length measures 47 in, base length is 68 in, and height is 41 in.

$$A = b \times h$$

$$= 68 (41)$$

$$= 2788$$

2788 in²

Area

$$P = 2 (a + b)$$

$$= 2 (47 + 68)$$

$$= 2 (115)$$

$$= 230$$

230 in

Perimeter

The length of the longer diagonal of a rhombus is 12 mm, while the shorter diagonal measures 10.7 mm. Calculate its area and perimeter if its base length is 8 mm.

$$A = \frac{d1 (d2)}{2}$$

$$= \frac{12 (10.7)}{2}$$

$$= 64.2$$

64.2 mm²

Area

$$P = 4 (a)$$

$$= 4 (8)$$

$$= 32$$

32 mm

Perimeter

The area of a parallelogram is 3000 yd². Find the height and perimeter if its base length is 155 yd, and side length is 117 yd.

$$A = b \times h$$

$$3000 = 155 h$$

$$3000 \div 155 = h$$

$$19.35 = h$$

19.35 yd

height

$$P = 2 (a + b)$$

$$= 2 (117 + 155)$$

$$= 2 (272)$$

$$= 544$$

544 yd

Perimeter

The area and base length of a rhombus are 388 in² and 20 in respectively. Solve for its height and perimeter.

$$A = b \times h$$

$$388 = 20 \times h$$

$$388 \div 20 = h$$

$$19.4 = h$$

19.4 in

height

$$P = 4 (a)$$

$$= 4 (20)$$

$$= 80$$

80 in

Perimeter

Find the base length and area of a parallelogram if its perimeter measures 1888 cm, side length is 40.33 cm, and height is 20 cm.

$$P = 2 (a + b)$$

$$1888 = 2 (40.33 + b)$$

$$1888 = 80.66 + 2b$$

$$1888 - 80.66 = 2b$$

$$1807.34 = 2b$$

$$1807.34 \div 2 = b$$

$$903.67 = b$$

903.67 cm

base length

$$A = b \times h$$

$$A = 903.67 \times 20$$

$$A = 18073.4$$

18073.4 cm²

Area