

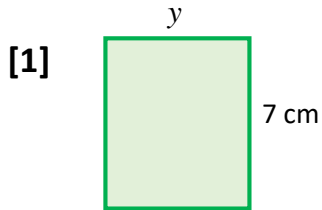
Perimeter (rectangles): Use perimeter to find missing side length

<http://www.learnersgrid.com>

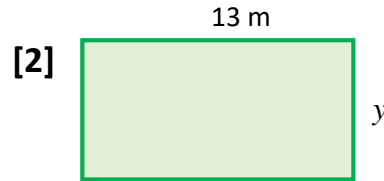
Date:

Name:

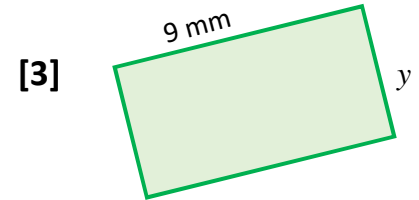
Use formulae, " $P = 2(L + w)$ " or " $P = 2L + 2W$ ", and the given perimeter of each rectangle to calculate the missing side length - and show ALL YOUR WORKING! Round to 1 d.p. **You should use your calculator!**



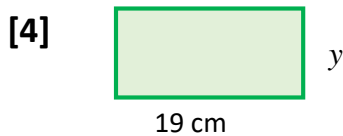
length of $y = ?$
perimeter = 20 cm



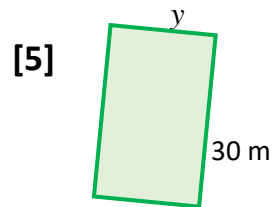
length of $y = ?$
perimeter = 40 m



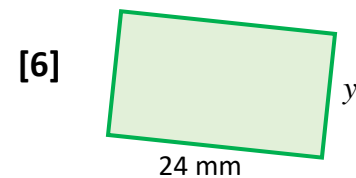
length of $y = ?$
perimeter = 26 mm



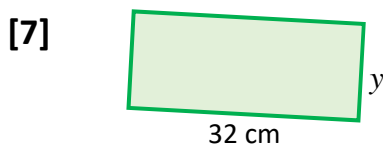
length of $y = ?$
perimeter = 84 cm



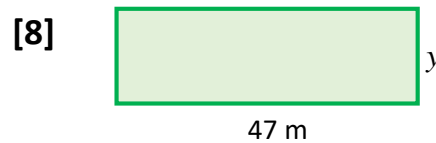
length of $y = ?$
perimeter = 108 m



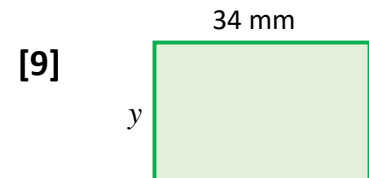
length of $y = ?$
perimeter = 90 mm



length of $y = ?$
perimeter = 108 cm



length of $y = ?$
perimeter = 164 m



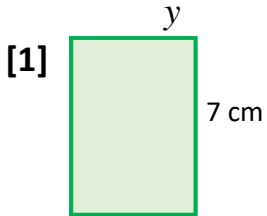
length of $y = ?$
perimeter = 132 mm

ANSWERS

Perimeter (rectangles): Use perimeter to find missing side length

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side y length = 3 cm

Worked Solution:

$$P = 2(L + W)$$

$$20 = 2(7 + y)$$

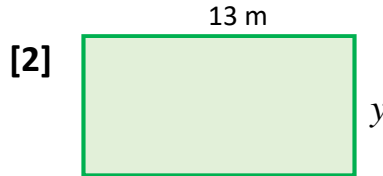
$$-14 \quad 20 = 14 + 2y \quad -14$$

$$6 = 2y$$

$$6/2 = 2y/2 \quad 3.0$$

$$3 = y$$

$$y = 3 \text{ cm}$$



side y length = 7 m

Worked Solution:

$$P = 2(L + W)$$

$$40 = 2(13 + y)$$

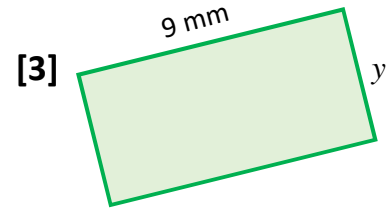
$$-26 \quad 40 = 26 + 2y \quad -26$$

$$14 = 2y$$

$$14/2 = 2y/2 \quad 7.0$$

$$7 = y$$

$$y = 7 \text{ m}$$



side y length = 4 mm

Worked Solution:

$$P = 2(L + W)$$

$$26 = 2(9 + y)$$

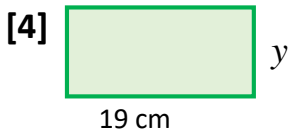
$$-18 \quad 26 = 18 + 2y \quad -18$$

$$8 = 2y$$

$$8/2 = 2y/2 \quad 4.0$$

$$4 = y$$

$$y = 4 \text{ mm}$$



side length = 23 cm

Worked Solution:

$$P = 2(L + W)$$

$$84 = 2(19 + y)$$

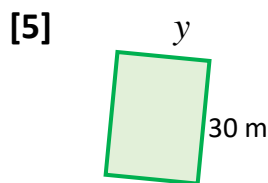
$$-46 \quad 84 = 38 + 2y \quad -46$$

$$46 = 2y$$

$$46/2 = 2y/2 \quad 23.0$$

$$23 = y$$

$$y = 23 \text{ cm}$$



side length = 24 m

Worked Solution:

$$P = 2(L + W)$$

$$108 = 2(30 + y)$$

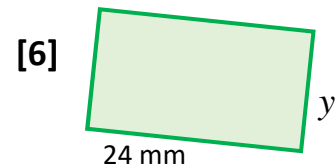
$$-60 \quad 108 = 60 + 2y \quad -60$$

$$48 = 2y$$

$$48/2 = 2y/2 \quad 24.0$$

$$24 = y$$

$$y = 24 \text{ m}$$



side length = 21 mm

Worked Solution:

$$P = 2(L + W)$$

$$90 = 2(24 + y)$$

$$-48 \quad 90 = 48 + 2y \quad -48$$

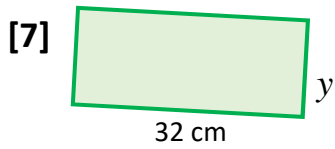
$$42 = 2y$$

$$42/2 = 2y/2 \quad 21.0$$

$$21 = y$$

$$y = 21 \text{ mm}$$

ANSWERS (page 2)



side length = 22 cm

Worked Solution:

$$P = 2(L + W)$$

$$108 = 2(32 + y)$$

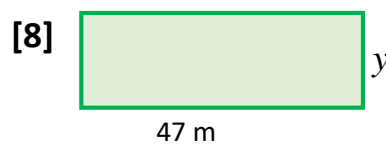
$$-64 \quad 108 = 64 + 2y \quad -64$$

$$44 = 2y$$

$$44/2 = 2y/2 \quad 22.0$$

$$22 = y$$

$$y = 22 \text{ cm}$$



side length = 35 m

Worked Solution:

$$P = 2(L + W)$$

$$164 = 2(47 + y)$$

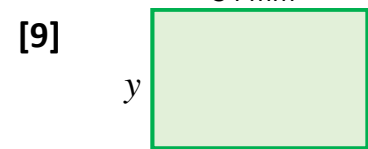
$$-94 \quad 164 = 94 + 2y \quad -94$$

$$70 = 2y$$

$$70/2 = 2y/2 \quad 35.0$$

$$35 = y$$

$$y = 35 \text{ m}$$



side length = 32 mm

Worked Solution:

$$P = 2(L + W)$$

$$132 = 2(34 + y)$$

$$-68 \quad 132 = 68 + 2y \quad -68$$

$$64 = 2y$$

$$64/2 = 2y/2 \quad 32.0$$

$$32 = y$$

$$y = 32 \text{ mm}$$