

Start Tasks



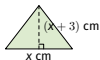
Write the geometric fact as an equation. If it is quadratic, find both roots and reject any that cannot be a length.

1.



A rectangle has width $x \text{ cm}$ and length $(x + 4) \text{ cm}$. Its area is 60 cm^2 . Find x .

2.



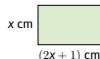
A triangle has base $x \text{ cm}$ and height $(x + 3) \text{ cm}$. Its area is 44 cm^2 . Find x .

3.



A rectangle has width $x \text{ cm}$ and length $(x - 2) \text{ cm}$. Its area is 63 cm^2 . Find x .

4.



A rectangle has width $x \text{ cm}$ and length $(2x + 1) \text{ cm}$. Its area is 55 cm^2 . Find x .

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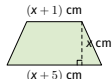
Write the geometric fact as an equation. If it is quadratic, find both roots and reject any that cannot be a length.

5.



Similar triangles have corresponding sides 5, 8 and x , $(x + 9)$. Find x .

6.



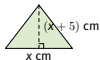
The trapezium has area 54 cm^2 . Find x , rejecting any root that cannot be a length.

7.



A rectangle has width $x \text{ cm}$ and length $(x + 3) \text{ cm}$. Its area is 70 cm^2 . Find x , then find the perimeter.

8.



A triangle has base $x \text{ cm}$ and height $(x + 5) \text{ cm}$. Its area is 52 cm^2 . Find x , then find the height.

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Write the geometric fact as an equation. If it is quadratic, find both roots and reject any that cannot be a length.

9.



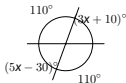
A square has side length $(x + 1)$ cm and area 100 cm^2 . Find x .

10.



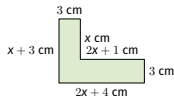
A triangle has angles $(x + 5)^\circ$, $(2x - 15)^\circ$, $(3x + 10)^\circ$. Find x and the largest angle.

11.



One angle is $(3x + 10)^\circ$, vertical opposite $(5x - 30)^\circ$. Find x and an adjacent angle.

12.



The L-shape has area 75 cm^2 . Find x , then find the perimeter.

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Write the geometric fact as an equation. If it is quadratic, find both roots and reject any that cannot be a length.

13.



A rectangle has width x cm and length $(x + 7)$ cm. Its area is 120 cm^2 . Find x .

14.



A triangle has base $(x + 6)$ cm and height x cm. Its area is 56 cm^2 . Find x .

15. A regular polygon has interior angle $(8x + 24)^\circ$ and exterior angle $(2x + 6)^\circ$ at each vertex. Find x , then state how many sides the polygon has.

16. An isosceles triangle has two equal sides of length x cm. Its base is $(x - 2)$ cm and its perimeter is 34 cm. Find x .