Geometry Workbook

Area and perimeter

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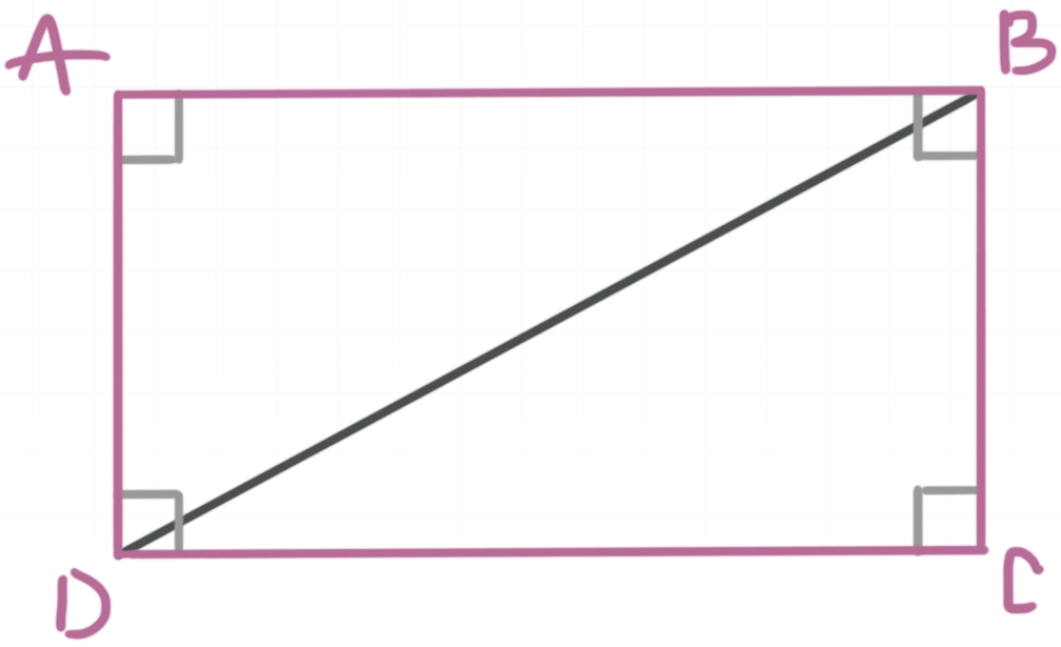
MATH

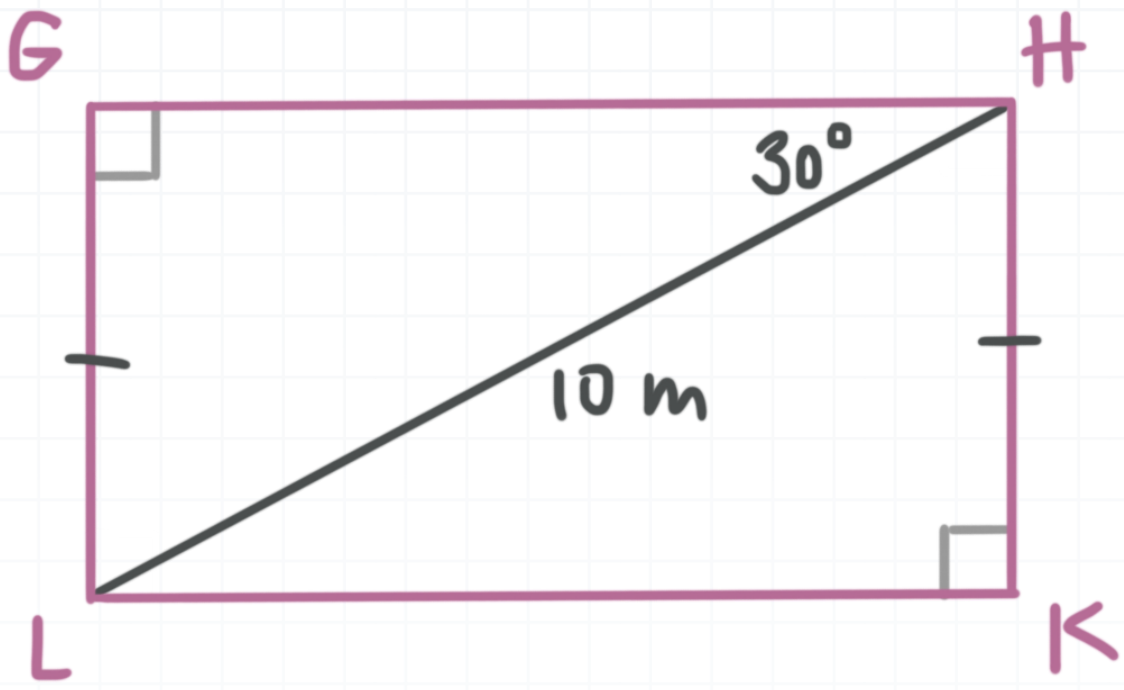
AREA OF A RECTANGLE

■ 1. The base of a rectangle is 8 feet. Find its height if the area of the rectangle is 80 ft^2.

■ 2. In rectangle $ABCD$, $BD = 13$ and $AB = 12$. Find the area of this rectangle.



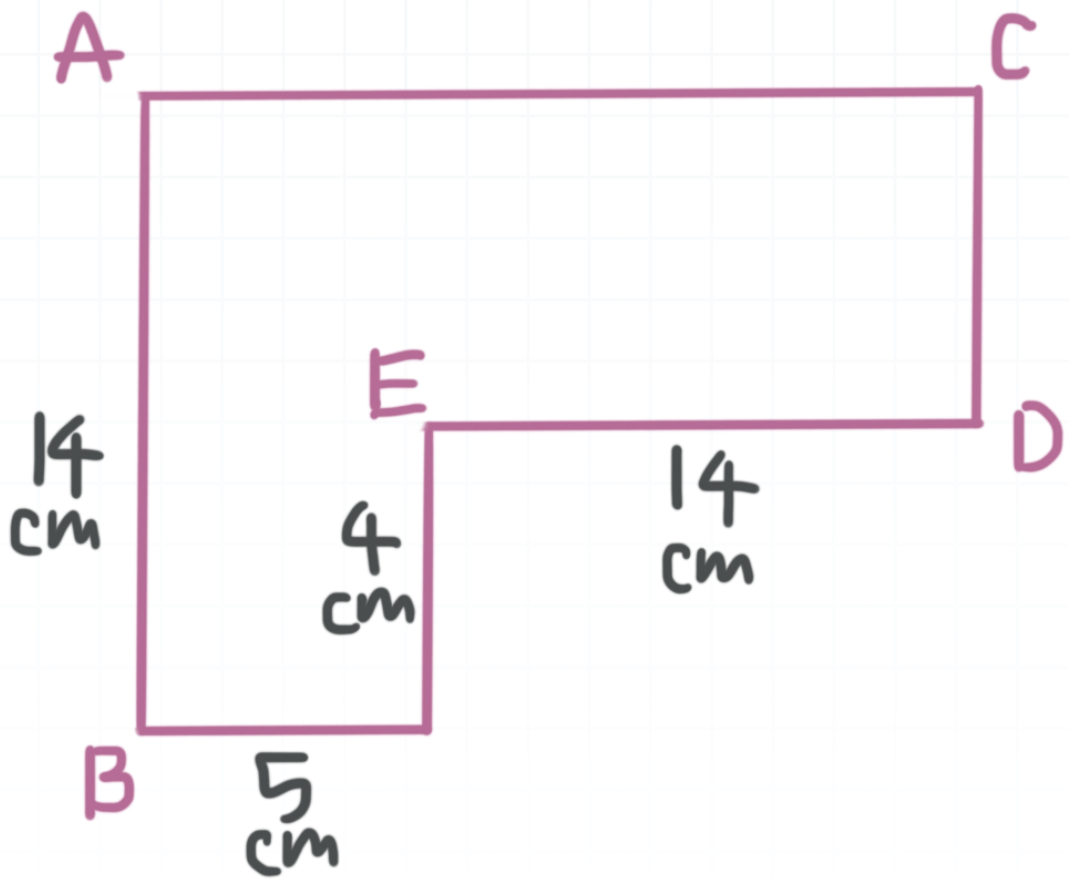
■ 3. In rectangle $GHKL$, $LH = 10$ and $m\angle GHL = 30$. Find the exact area of the rectangle.



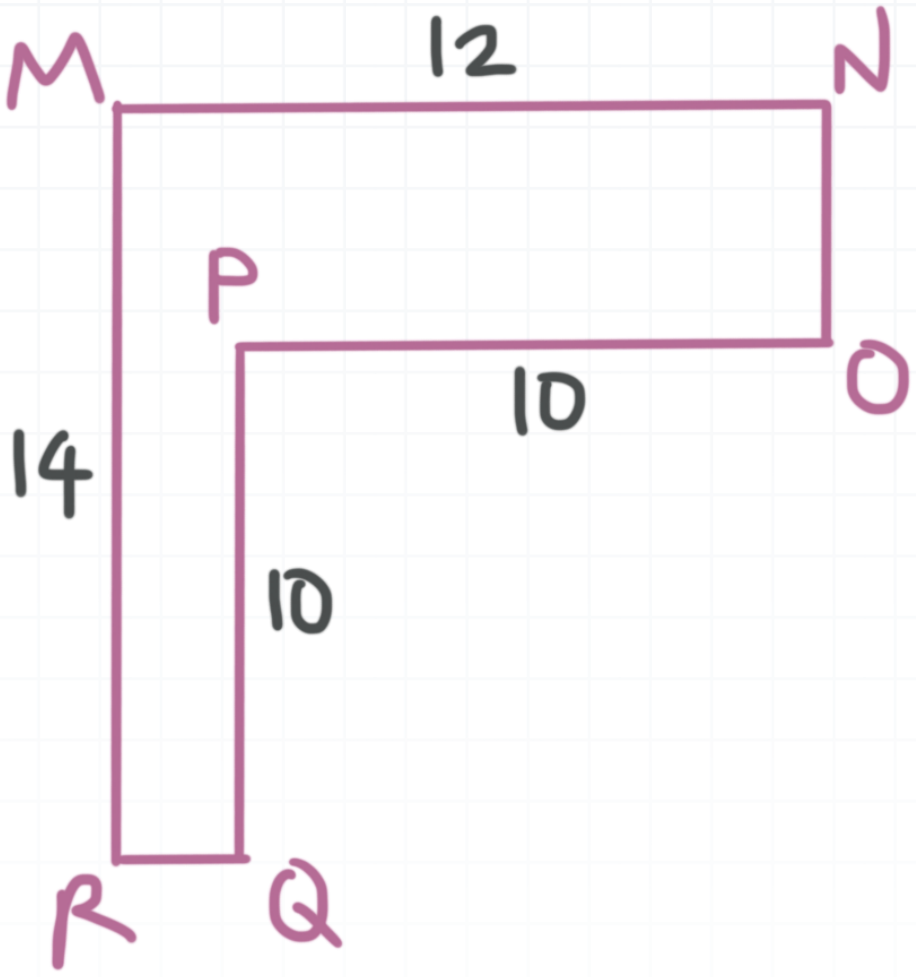
■ 4. The area of a small square flower garden is 49 ft^2. Suppose we wish to make the garden bigger by adding 6 feet to one of the sides. How much more square footage is available in this new rectangular garden?

AREA OF A RECTANGLE USING SUMS AND DIFFERENCES

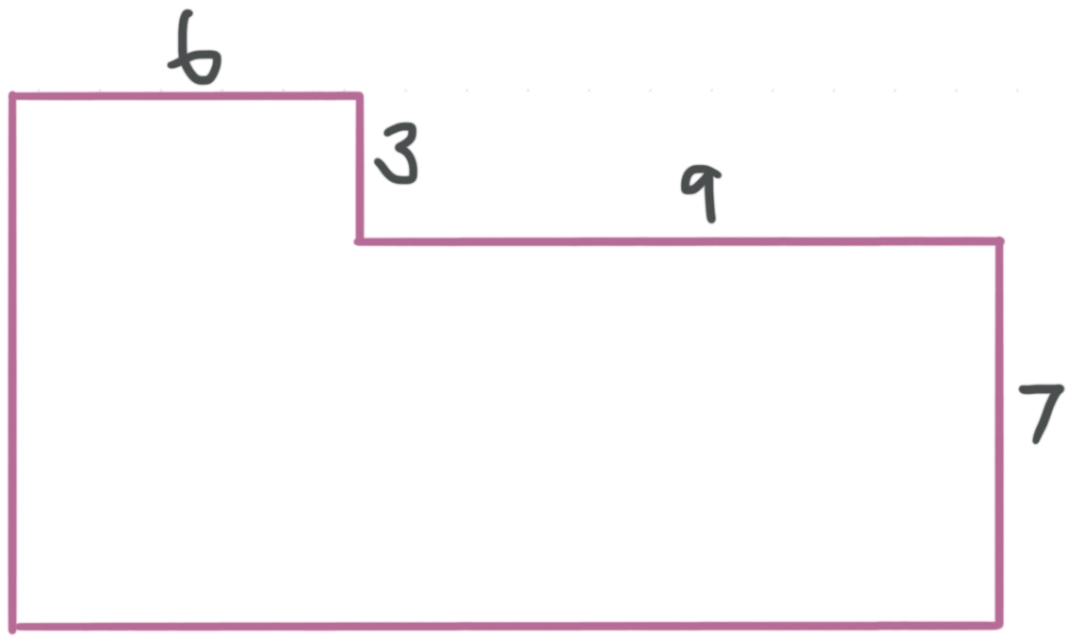
1. Find the area of the figure.



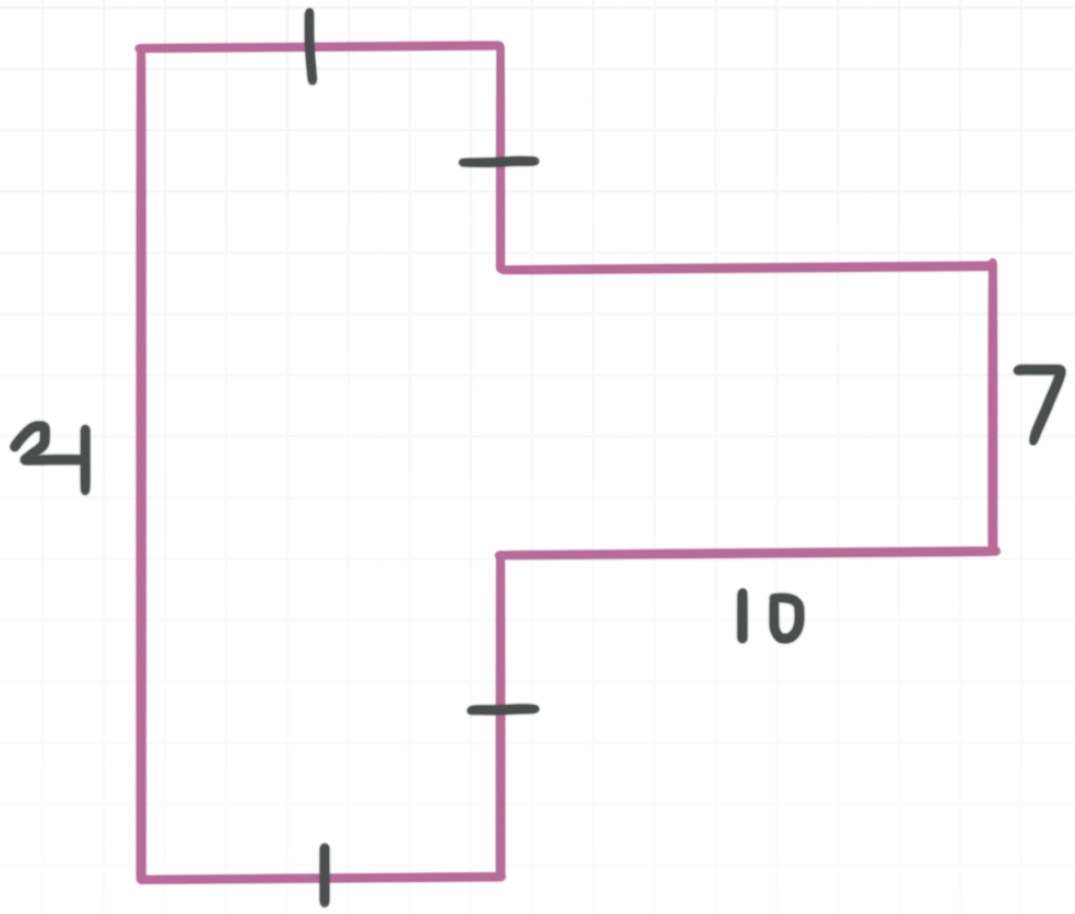
2. Find the area of the figure.



■ 3. Find the area of the figure.



■ 4. Find the area of the figure.



PERIMETER OF A RECTANGLE

■ 1. A rectangle has a base of 10 meters. The height is 4 meters greater than the base. Find the perimeter of this rectangle.

■ 2. The area of a rectangle is 40 ft^2. Find the perimeter of this rectangle if the length of the rectangle is 3 feet longer than the width.

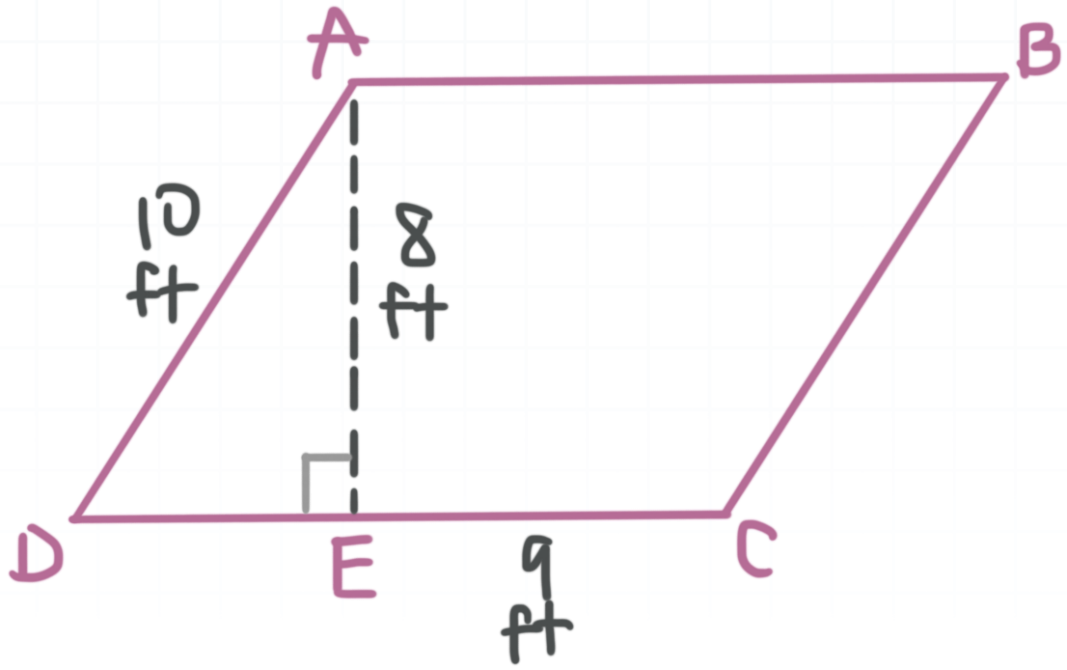
■ 3. Find the perimeter of a rectangle with vertices at $A(-3,0)$, $B(0,4)$, $C(4,1)$, and $D(1,-3)$.

■ 4. Find the value of x if the base of the rectangle has length $x+4$, the height of the rectangle is x, and the perimeter of a rectangle is 20 units.

AREA OF A PARALLELOGRAM

■ 1. Find the area of a parallelogram with $b = 14$ yards and $h = 10$ yards.

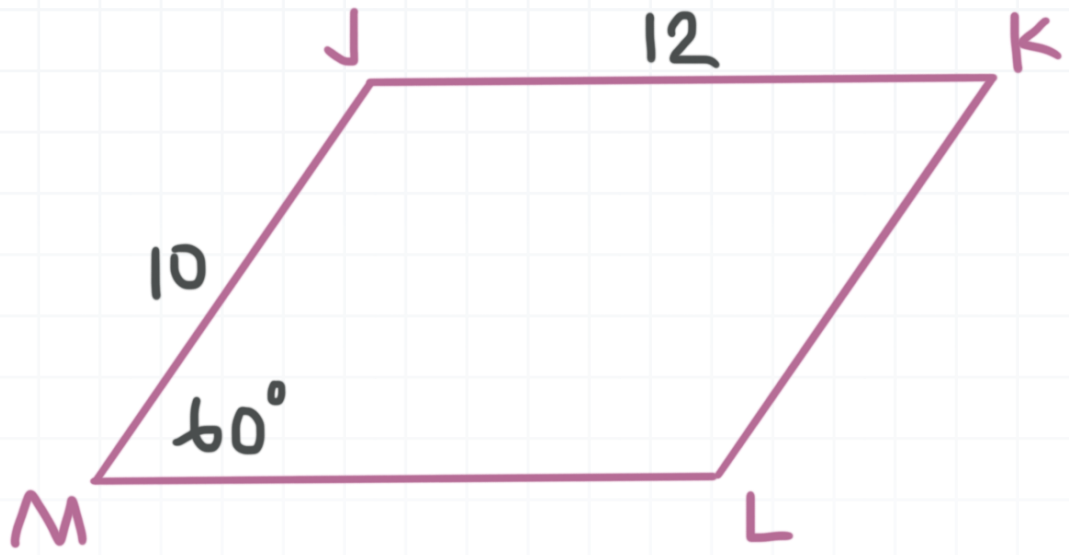
■ 2. Find the area of the parallelogram.



■ 3. Find the area of parallelogram $JKLM$, if $J(0,0)$, $K(1,3)$, $L(-5,3)$, and $M(-6,0)$.

■ 4. A parallelogram has a base that is 3 feet longer than it is tall. The area of the parallelogram is 88 square feet. Find the height of the parallelogram.

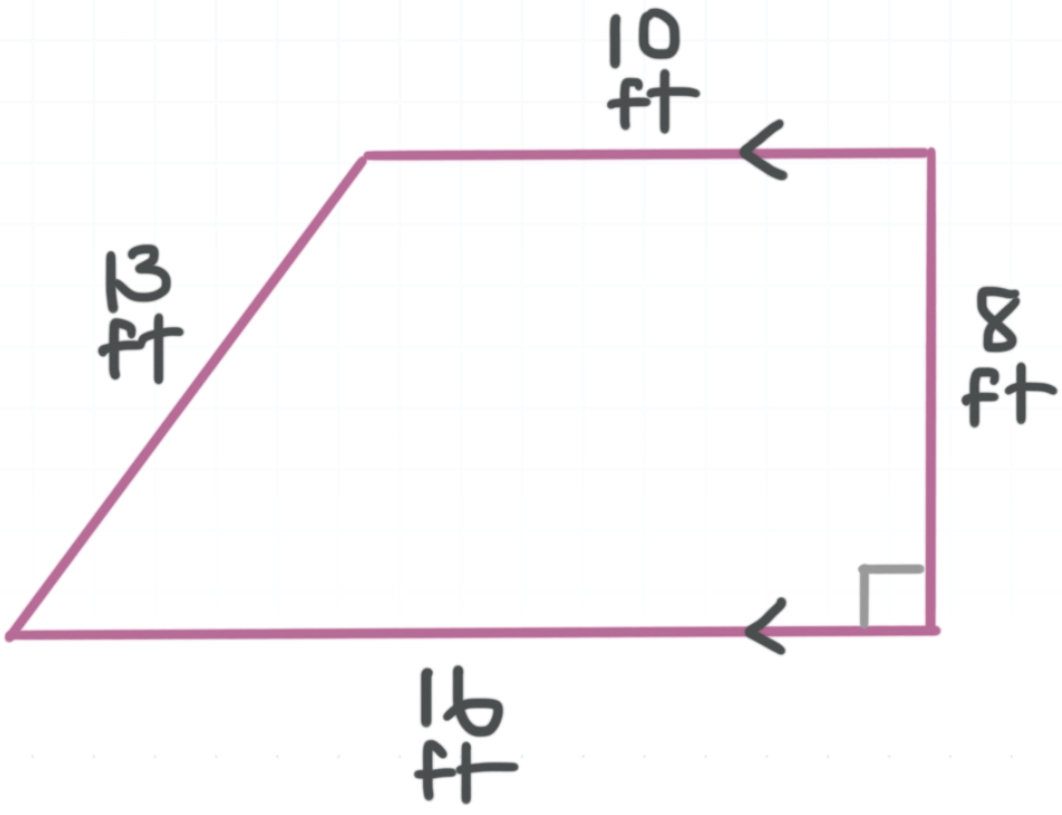
■ 5. Find the exact area of the parallelogram.



AREA OF A TRAPEZOID

■ 1. Find the area of a trapezoid with base lengths 16 and 18, and height 10.

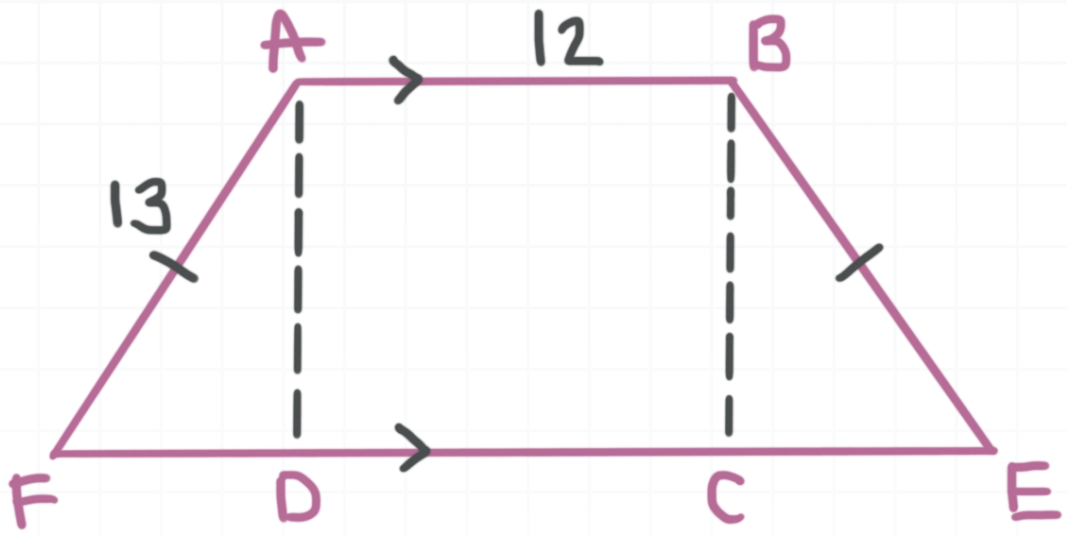
■ 2. Find the area of the trapezoid.



■ 3. Find the exact area of the trapezoid that has congruent 2-meter bases and a height of 4 meters.

■ 4. The area of a trapezoid is 60 m^2. One of the bases has a measure of 7 m and the height of the trapezoid is 10 m. Find the length of the other base.

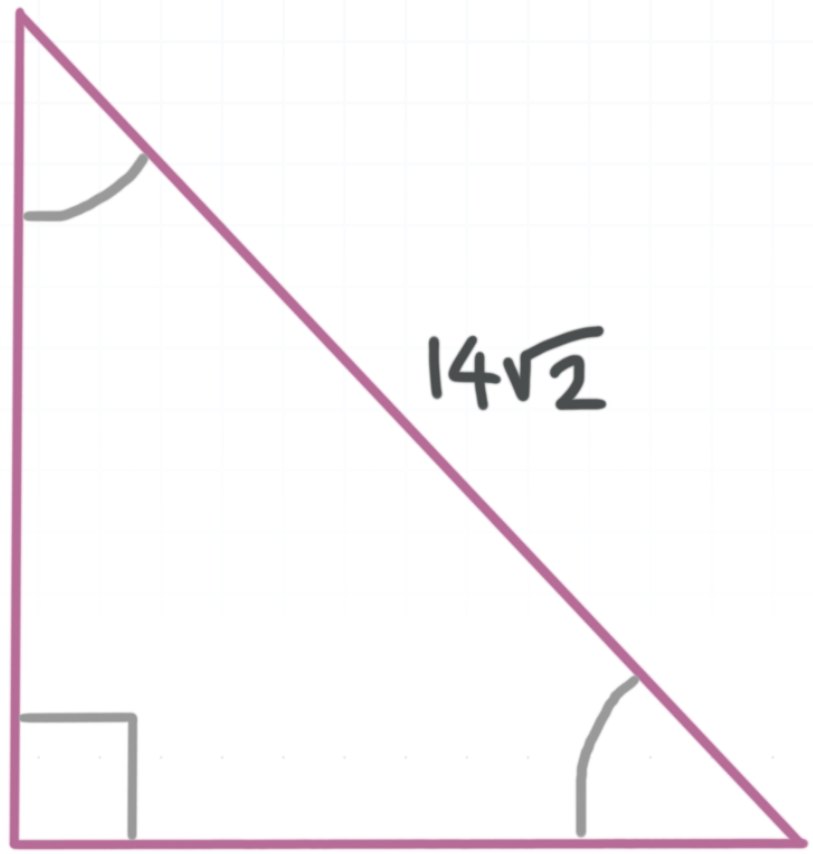
5. Find the area of trapezoid $ABEF$, if $ABCD$ is a square.



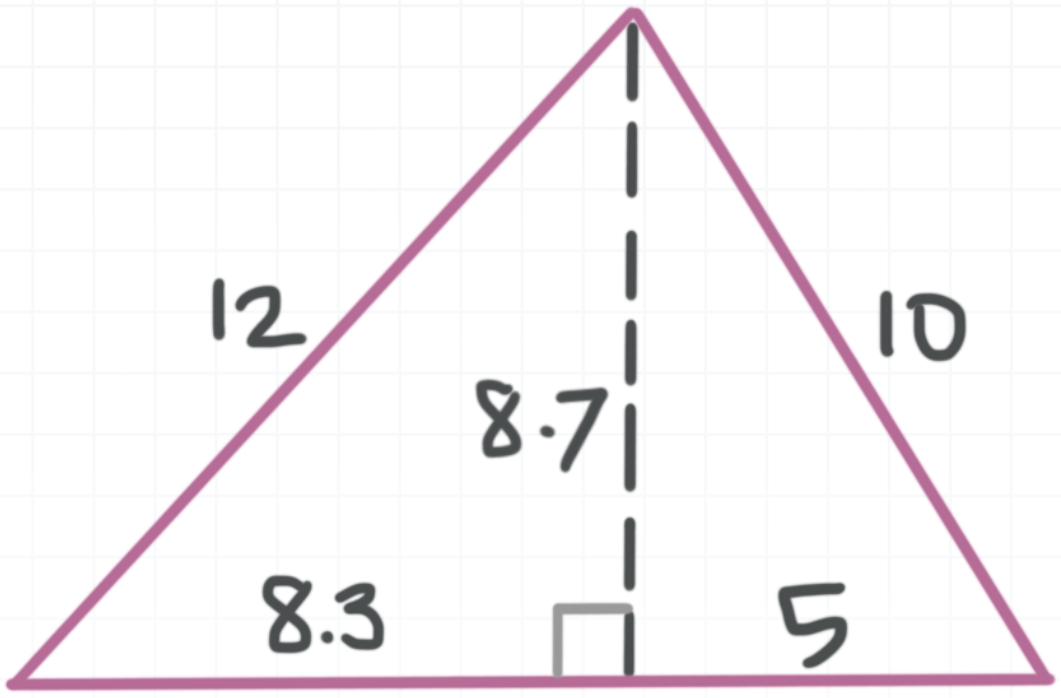
AREA OF A TRIANGLE

1. Find the area of a triangle that has base length 16 and height 14.

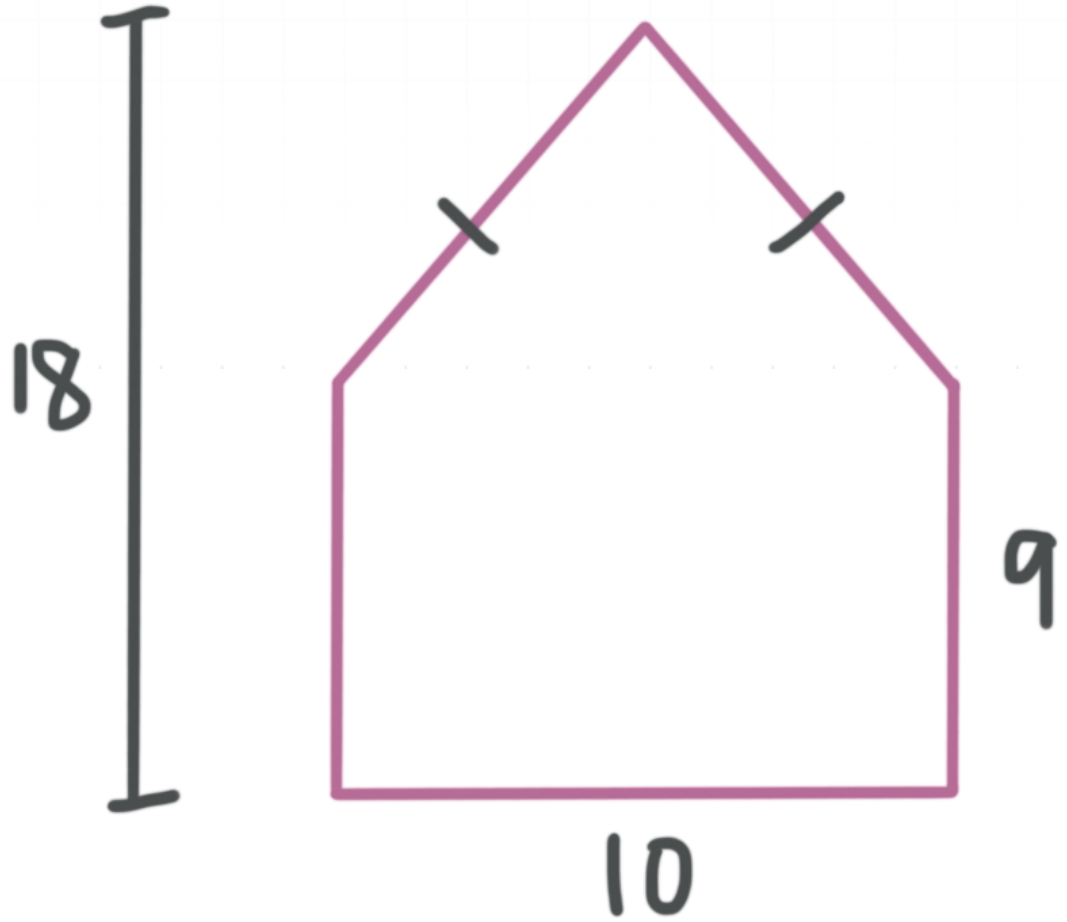
2. Find the area of the triangle.



3. Find the area of the triangle.

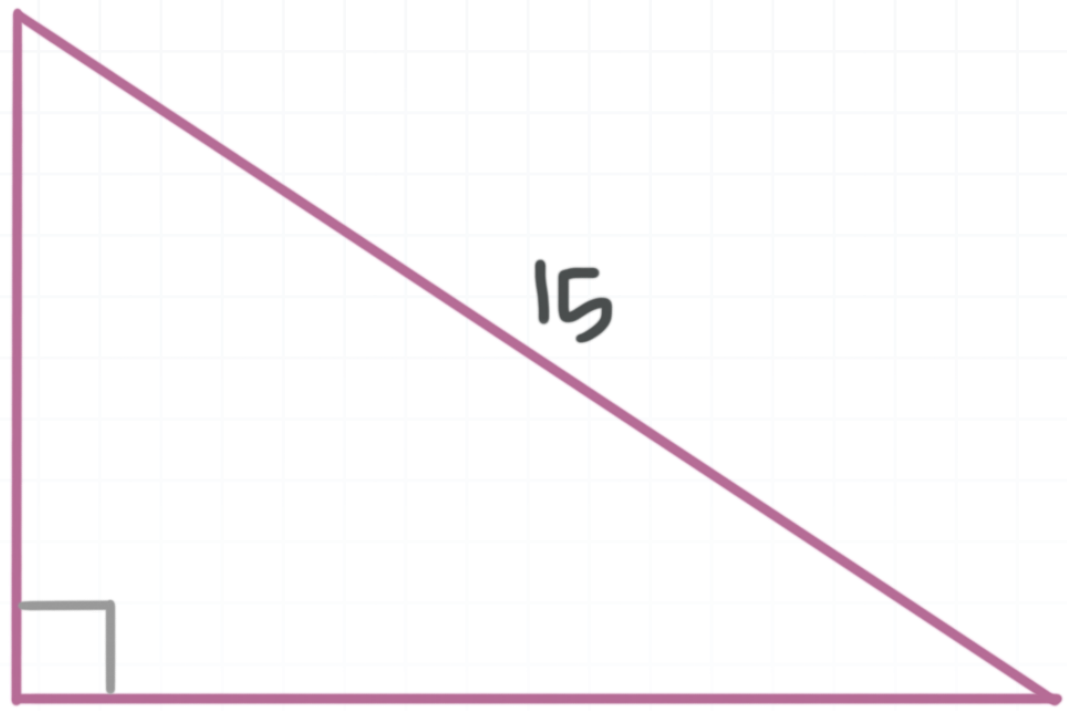


4. Find the area of the figure below.

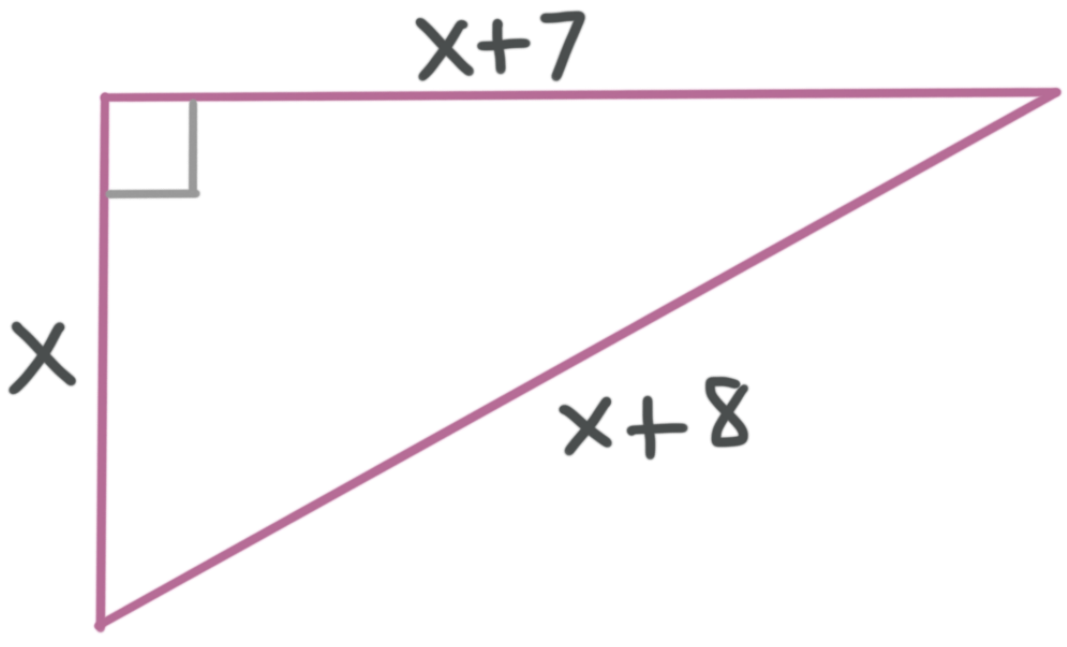


PERIMETER OF A TRIANGLE

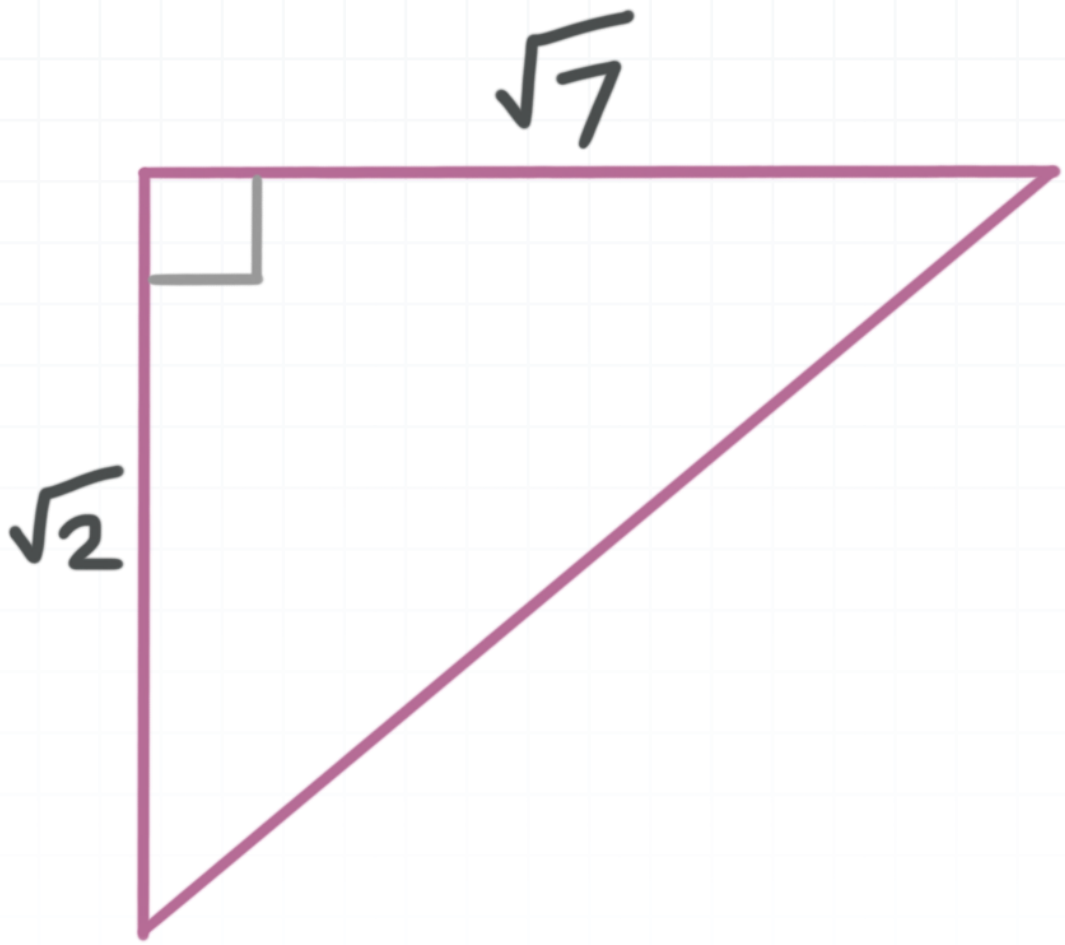
■ 1. Find the perimeter of the triangle.



■ 2. Find the perimeter of the triangle.



3. Find the exact perimeter of the triangle.



4. Find the perimeter of a right, isosceles triangle, to the nearest hundredth, in which one of the legs measures 5 inches.

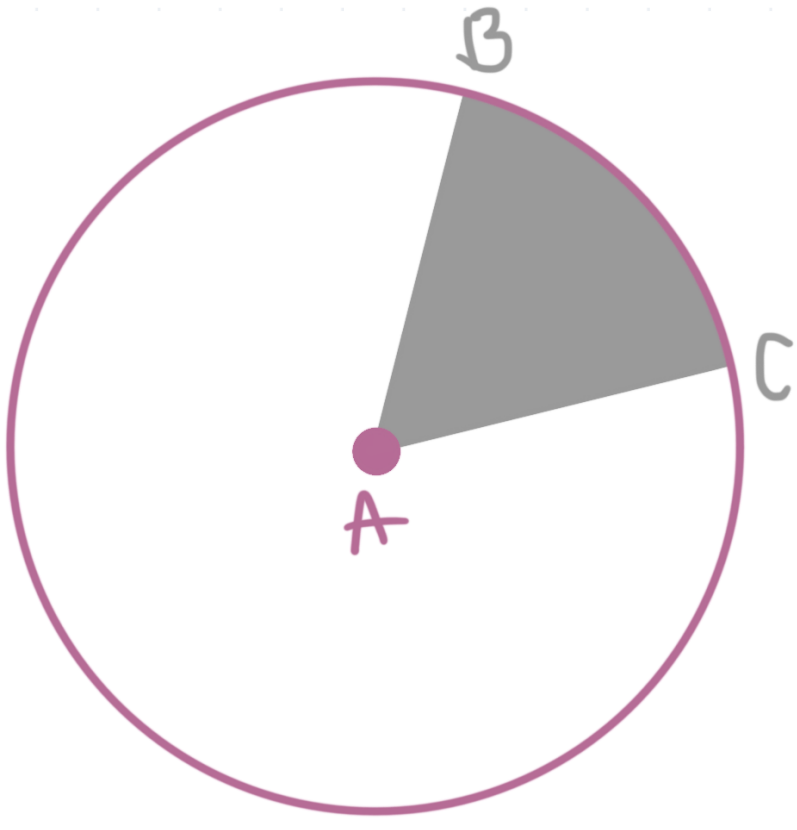
AREA OF A CIRCLE

■ 1. Find the area of a circle to the nearest hundredth with a diameter of 44 inches.

■ 2. The area of a circle is 300 cm^2. Find the length of the radius to the nearest tenth of a centimeter.

■ 3. Find the exact area of a circle with a circumference of 18π.

■ 4. Find the area of the shaded region to the nearest tenth if $m\angle BAC = 60°$ and $AC = 16$ feet.

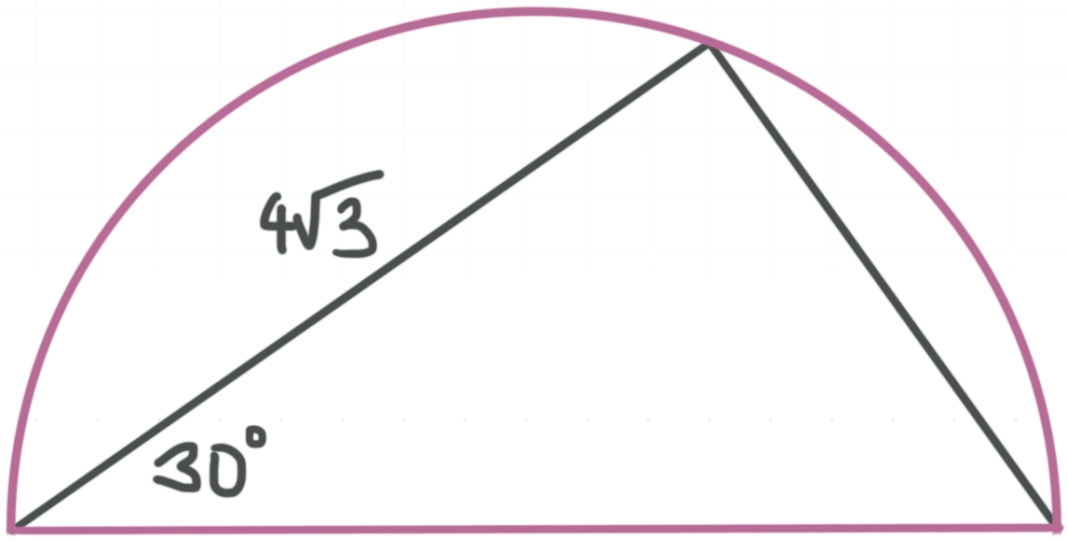


CIRCUMFERENCE OF A CIRCLE

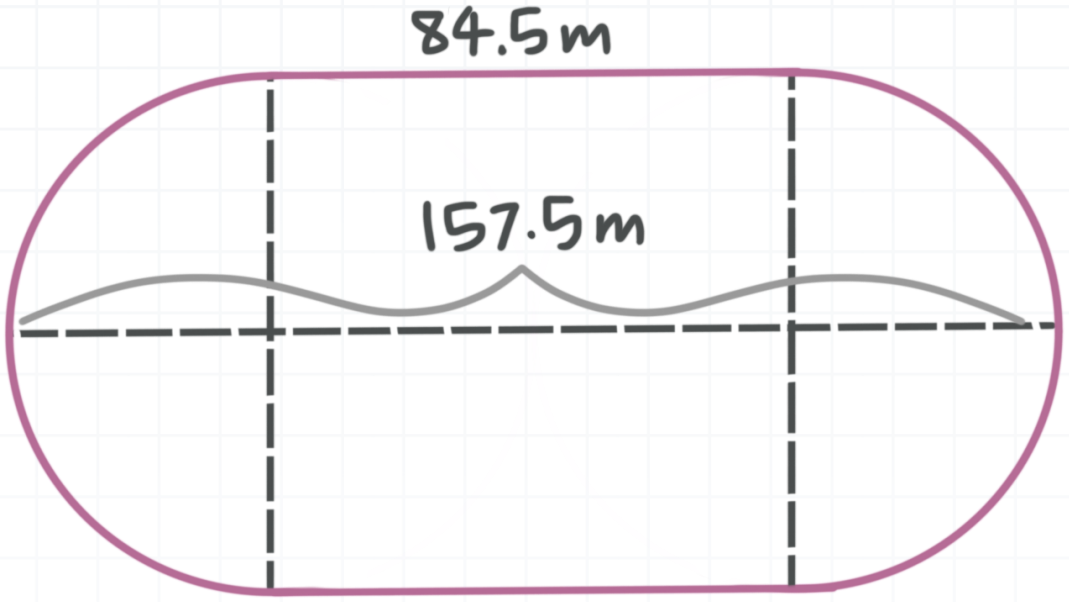
■ 1. To the nearest hundredth, find the circumference of a circle that has a radius of 14 feet.

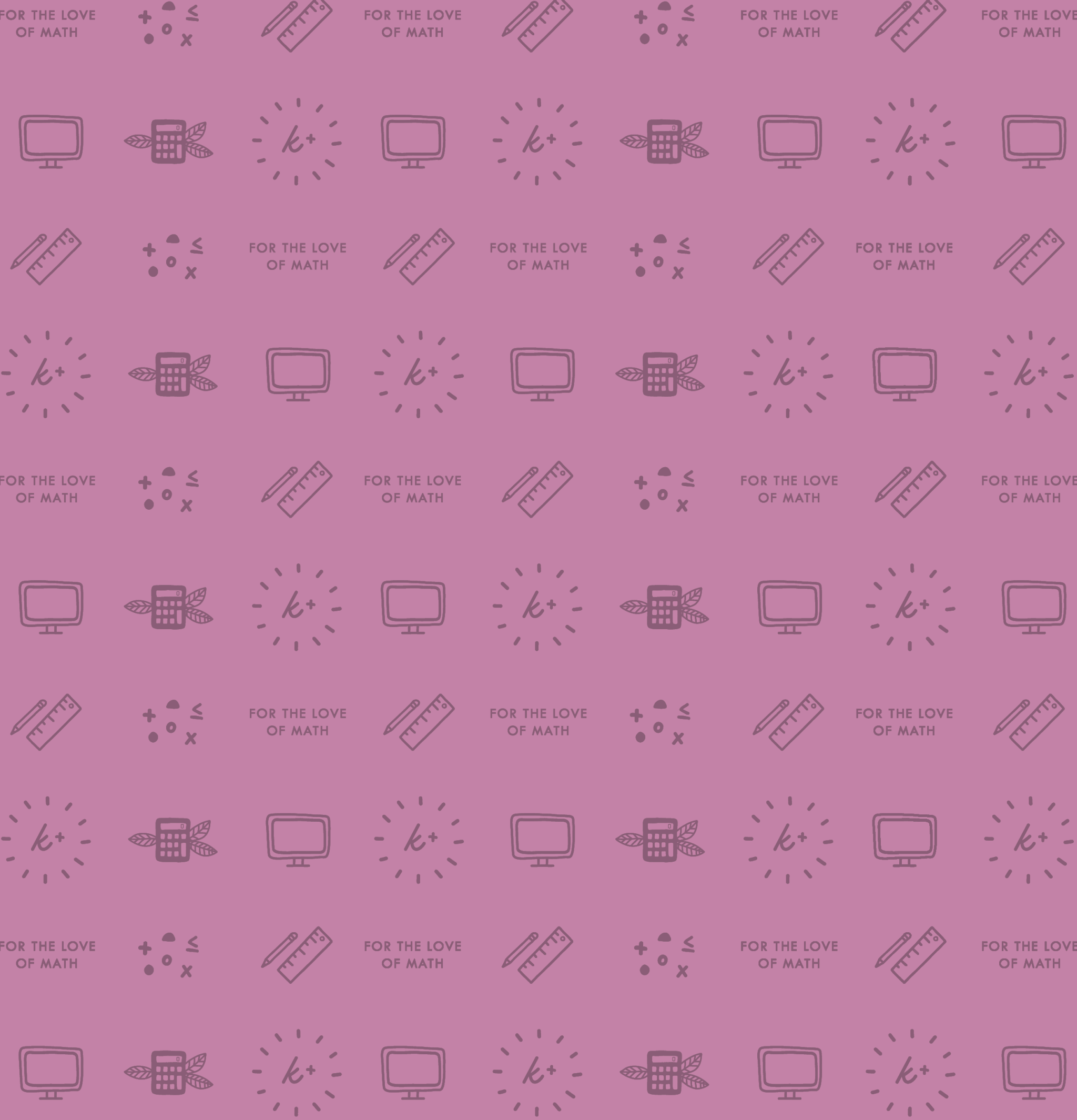
■ 2. Find the area of a circle with a circumference of 400 ft.

■ 3. Find the exact circumference of the semicircle.



■ 4. To the nearest tenth, find the distance around the following track.





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