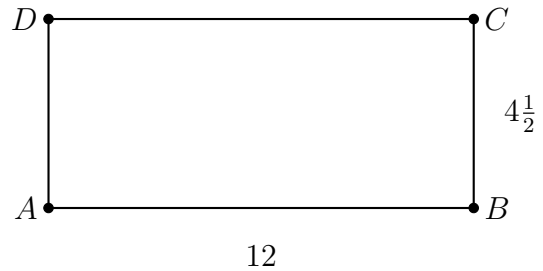


Name:

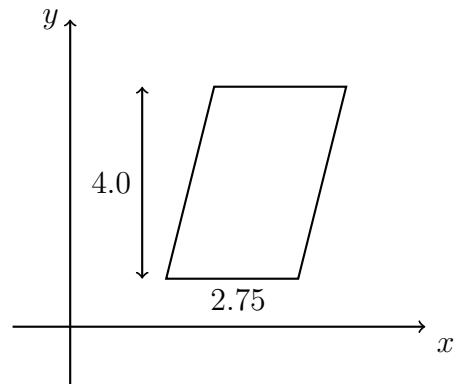
### 1.10 Homework: Area situations

- Find the area of rectangle  $ABCD$  having length  $l = 12$  and width  $w = 4\frac{1}{2}$ . Start with a formula of this form, substituting the given values:

$$A = l \times w$$



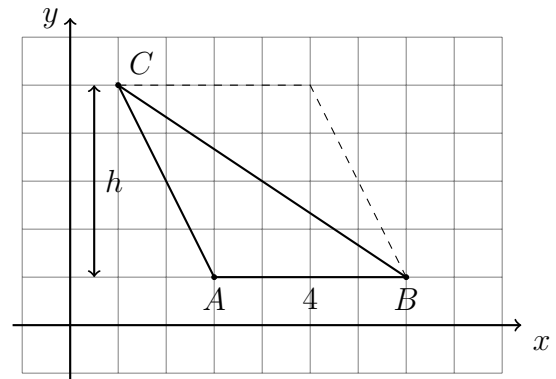
- A parallelogram is shown on the  $x$ - $y$  plane having a base  $b = 2.75$  and height  $h = 4.0$ . Find its area, showing the calculation.



- The  $\triangle ABC$  is shown below with  $A(3, 1)$ ,  $B(7, 1)$ , and  $C(1, 5)$ . The length of the base of the triangle is  $AB = 4$ .

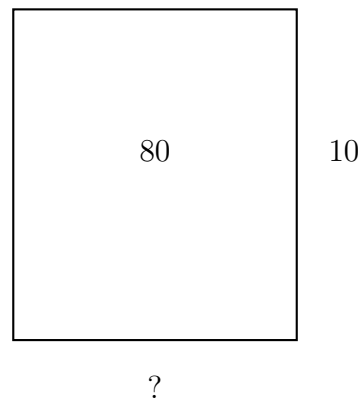
(a) Find the height  $h$ .

(b) Find the triangle's area, showing the calculation.



- Find the length of the base of a rectangle with area  $A = 80$  and height  $h = 10$ . Start with the form (use  $b$  or  $x$ ):

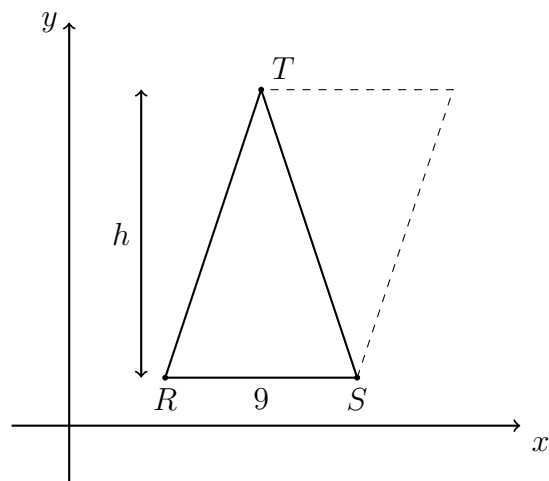
$$A = b \times h = 80$$



5. Find the height of the  $\triangle RST$ , having an area of  $A = 117$  and base  $RS = 9$ .

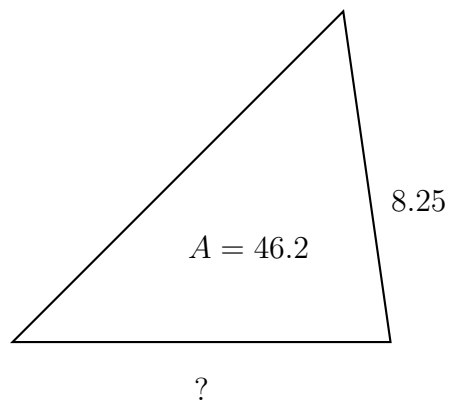
Start by substituting values in the area formula:

$$A = \frac{1}{2}bh = 117$$



6. Find the length of the base of a triangle with area  $A = 46.2$  and height  $h = 8.25$ . Express your result as a decimal. Start with the form (use  $b$  or  $x$ ):

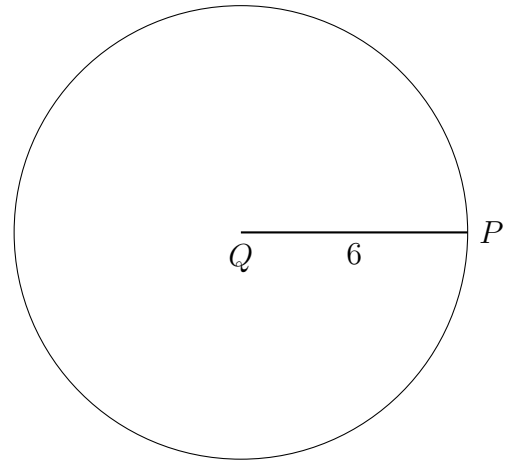
$$A = \frac{1}{2} \times b \times h = 46.2$$



7. Find the area of circle  $Q$  with radius  $r = 6$  centimeters, rounded to the *nearest tenth*. Start with the formula

Name:

$$A = \pi r^2$$

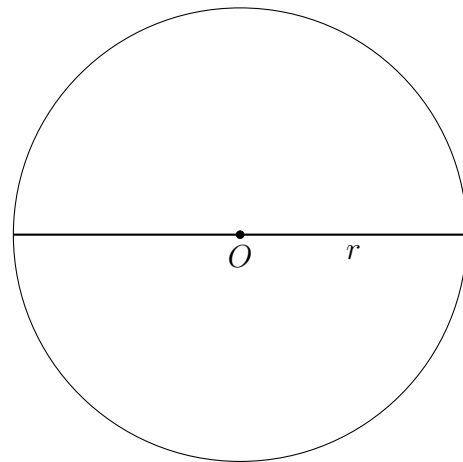


8. Find the radius and circumference of circle  $O$  with diameter  $D = 15$  centimeters.

(a) Write down the radius.

(b) State the circumference in terms of  $\pi$

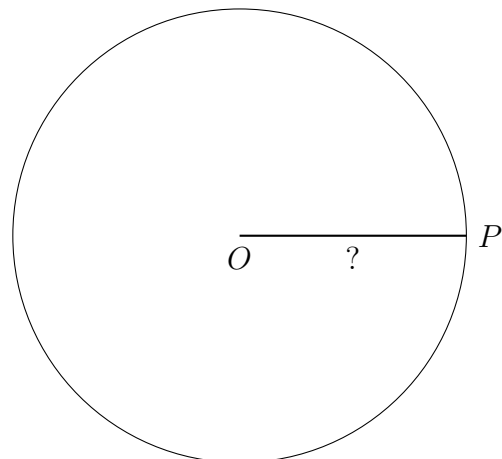
(c) Express the circumference as a decimal, rounding to the *nearest hundredth*.



9. Given circle  $O$  with area  $A = 64\pi$  square centimeters.

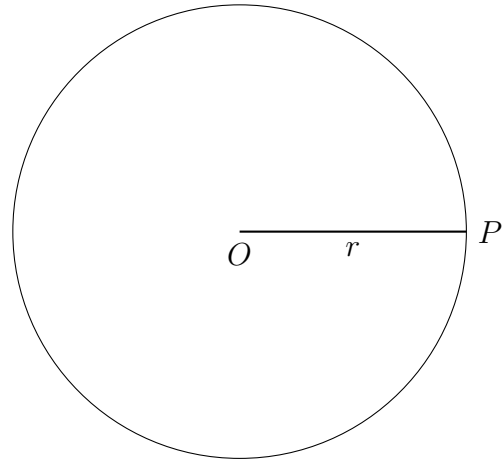
Find the radius of circle,  $OP$ . Start with the formula

$$A = \pi r^2 = 64\pi$$



10. Given circle  $O$  with circumference  $C = 48\pi$  centimeters.

Find the radius of circle,  $OP$ .



11. Spicy: Find the area of the  $\triangle ABC$ , shown below, with  $A(2, 2)$ ,  $B(7, 4)$ , and  $C(4, 8)$ .

(a) First find the area of the red rectangle with sides  $b = 5$ ,  $h = 6$ .

(b) Find the area of the three triangles surrounding  $\triangle ABC$  in the rectangle.

(c) Subtract their areas from the rectangle to find  $A_{\triangle ABC}$

