

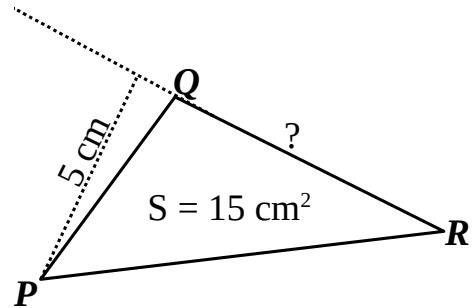
1. Remove parenthesis:

$$(3u - 1)^2 = \underline{\hspace{4cm}}$$

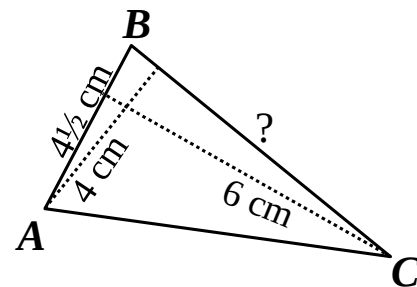
$$(y + 2) \cdot (y - 2) = \underline{\hspace{4cm}}$$

2. It take the in-pipe 4 hours to fill a swim pool. It takes and out-pipe 5 hours to drain the swim pool. How long will it take to fill the pool if the out pipe remains open by mistake?

3. How long is side QR of the triangle PQR ?



4. Given triangle ABC . $|AB| = 6 \text{ cm}$, Find the side BC .
(Hint: find the area of the triangle first)



5. A motor boat can move 25 km/h. A river flow is 5 km/h.

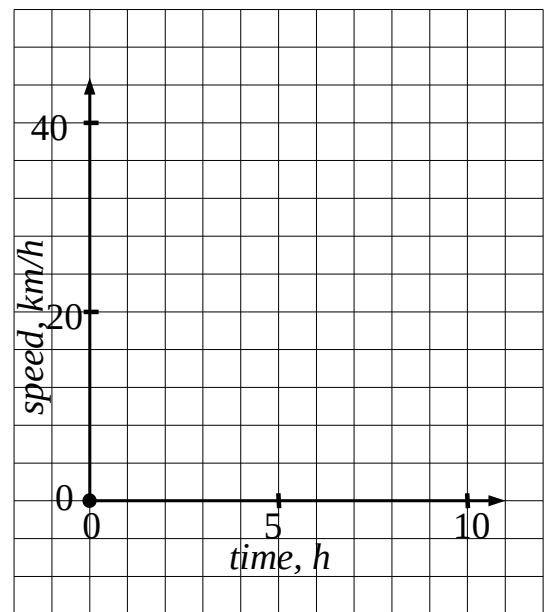
a) How long will it take the boat to move 120 km upstream?

b) How long will it take the boat to move 120 km downstream?

c) How long will a round trip take?

6. Every day a factory makes 20 bicycles per hour before lunch and 30 bicycles after lunch. How many days does it take to produce 500 bicycles?

7. A biker goes 20 km/h on a ground road and 30 km/h on the asphalt. At noon the biker starts his trip on the ground road and moves 10 km until he hits a highway. He and his trip at 4 PM. How long was the trip?



8. Solve the equations:

a) $3 \cdot (2x + 1) + (2x - 8) : 4 = \frac{1}{2} (5x - 6)$

b) $|2x - 1| + x = 8$

c) $\frac{2}{1-2x} = \frac{1}{5}$