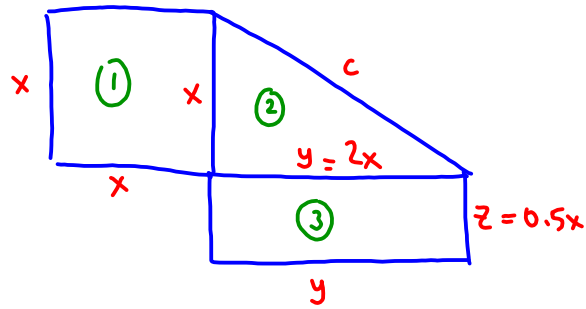


12.



$$\text{Area ①} \\ = x^2$$

$$\text{Area ②} \\ = \frac{xy}{2} = \frac{x(2x)}{2} \\ = x^2$$

$$\text{Area ③} \\ = yz \\ = 2xz$$

$$2 \cdot x^2 = \frac{xy}{2} \cdot 2$$

and

$$\frac{x^2}{2} = \frac{2xz}{2}$$

$$\frac{2x^2}{x} = \frac{xy}{x}$$

$$\frac{0.5x^2}{x} = \frac{xz}{x}$$

$$2x = y$$

$$0.5x = z$$

Perimeter of ③:

$$P = 2l + 2w$$

$$15 = 2(2x) + 2(0.5x)$$

$$15 = 4x + 1x$$

$$15 = 5x$$

$$x = 3$$