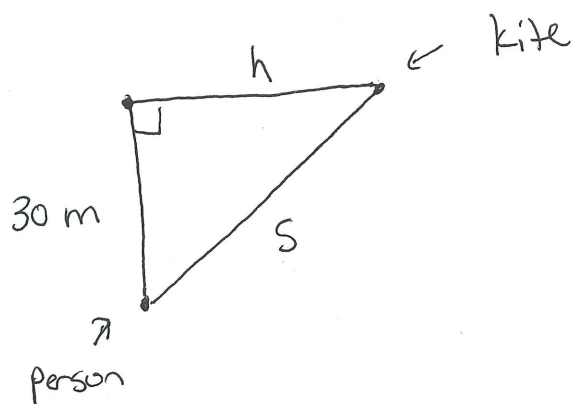




Let s be the amount of string let out,

Let h be the distance the kite has gone horizontally,

Know:

$$s^2 = h^2 + 30^2$$

$$s = 50 \text{ m}$$

$$h' = 6 \text{ m/s}$$

$$s' = ?$$

$$h^2 = s^2 - 30^2$$

$$h^2 = 50^2 - 30^2$$

$$h = 40 \text{ m}$$

$$s^2 = h^2 + 30^2$$

$$2ss' = 2hh'$$

$$2(50)s' = 2(40)(6)$$

$$s' = \frac{2 \cdot 40 \cdot 6}{2 \cdot 50}$$

$$s' = \frac{24}{5} \text{ m/s}$$