



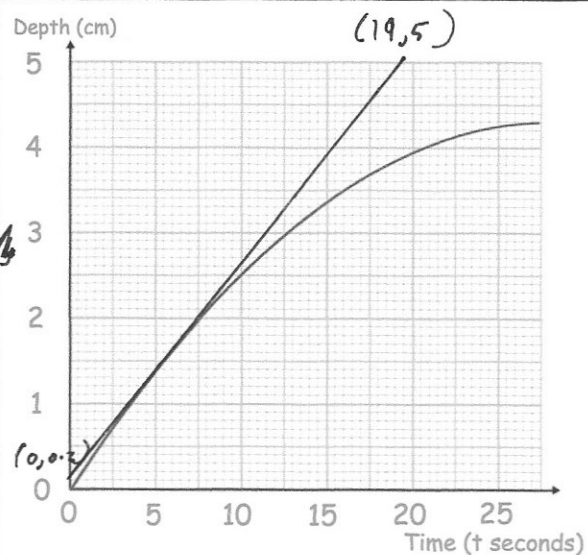
Which of these values cannot be the sine of an angle?

0 -0.9 $\frac{2}{3}$ 1.2

Calculate an estimate for the gradient of the graph when $t = 5$ seconds.

$$\frac{5 - 0.2}{19 - 0} = 0.2526 \text{ cm/s}$$

0.2526 cm/s



$$h(x) = 2x + 1$$

Find the value of a such that

$$h(a) = h^{-1}(a)$$

$$y = 2x + 1 \quad h^{-1}(x) = \frac{x-1}{2}$$

$$y - 1 = 2x$$

$$x = \frac{y-1}{2}$$

$$2a + 1 = \frac{a-1}{2}$$

$$4a + 2 = a - 1$$

$$3a = -3$$

$$a = -1$$

£1 10p 10p 20p 50p 20p

£1 5p 5p £1 20p £1

3 coins are picked at random without replacement.

$$\frac{1}{220} + (3 \times \frac{1}{660}) = \frac{1}{110}$$

Work out the probability that exactly 60p is chosen.

$$P(20, 20, 20) = \frac{3}{12} \times \frac{2}{11} \times \frac{1}{10} = \frac{1}{220}$$

$$P(50, 5, 5) = \frac{1}{12} \times \frac{3}{11} \times \frac{1}{10} = \frac{1}{660}$$

$$P(5, 50, 5) = \frac{1}{660} \quad P(5, 5, 50) = \frac{1}{660}$$