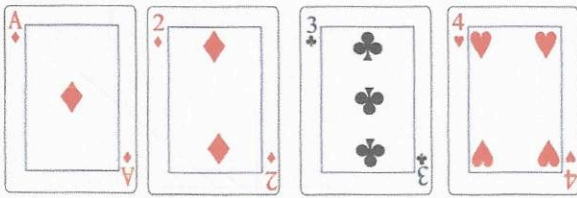


19th February



Corbettmaths

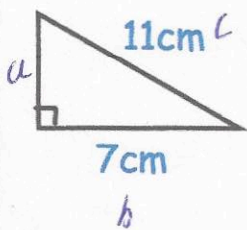


Sophie selects a card at random, then replaces it. She then selects another.

What is the probability she selects two red cards?

$$P(RR) = \frac{3}{4} \times \frac{3}{4} = \frac{9}{16}$$

The triangle below is enlarged by scale factor 3.



$$\begin{aligned} a^2 + b^2 &= c^2 \\ a^2 + 7^2 &= 11^2 \\ a^2 &= 72 \\ a &= 8.48... \end{aligned}$$

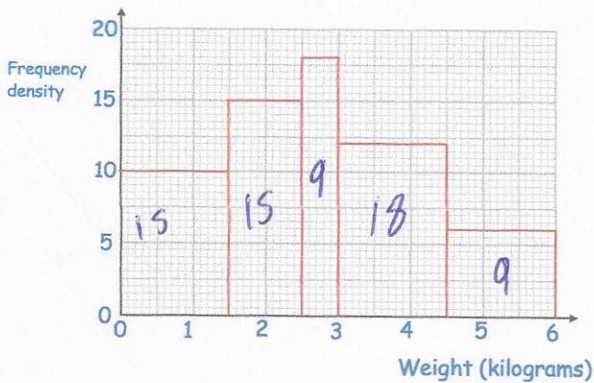
Find the area of the enlarged triangle.

$$\begin{aligned} \text{Area} &= \frac{1}{2}(h \times b) \\ &= \frac{1}{2}(21 \times 25.4558...) \\ &= 267.286 \text{ cm}^2 \end{aligned}$$

Hollie invests some money at 5% interest per annum.

How many years will it take until she has double her initial amount?

$$\begin{aligned} 100 \times 1.05^y &= \\ \text{years } 14 &\rightarrow \pounds 197.99 \\ 15 &\rightarrow \pounds 207.89 \\ 15 \text{ years} \end{aligned}$$



Use the histogram to complete the frequency table.

| Weight, w | Frequency |
|--------------------|-----------|
| $0 < w \leq 1.5$ | 15 |
| $1.5 < w \leq 2.5$ | 15 |
| $2.5 < w \leq 3$ | 9 |
| $3 < w \leq 4.5$ | 18 |
| $4.5 < w \leq 6$ | 9 |