

## Match-Up Compound Interest and Depreciation



1	Isla invests £300 at 4% compound interest. How much money does she have after 7 years?					
2	Yusuf invests £400 at 1% compound interest. How much money does he have after 3 years?					
3	Maria invests £375 at 2% compound interest. How much money does she have after 4 years?					
4	Arthur invests £250 in bonds at 8% compound interest. How much are the bonds worth after 4 years?					
5	A laptop which costs £450 depreciates at a rate of 12% per year. What is it worth after 2 years?					
6	A mobile phone which costs £360 depreciates at a rate of 14% per year. How much is it worth after 3 years?					
7	Fiona invests £200 at 5.5% compound interest. How much does she have after 3 years?					
8	Jamal invests £5000 at 2.5% compound interest. How much interest will he earn in 3 years?					
9	A TV which costs £475 depreciates at a rate of 13.5% per year. How much is the TV worth after 4 years?					
10	£275 is invested for 2 years at 3.5% interest then 4 years at 1.5% interest. How much is the investment worth after these 6 years?					
11	Yvonne invests £2750 at a compound interest rate of 1.25%. How much interest does Yvonne earn in 6 years?					
12	Athar buys a bike for £650. It depreciates in value by $15\%$ in the $1^{st}$ year, $12.5\%$ in the $2^{nd}$ year and $7.5\%$ in the $3^{rd}$ year. How much is it worth after 3 years?					

£228.98
£212.80
£348.48
£265.92
£394.78
£447.18
£312.66
£340.12
£405.91
£234.85
£412.12
£384.45

1	2	3	4	5	6	7	8	9	10	11	12

## **Representing Statistical Data**

**1.** The length in mm of 80 leaves is recorded in a grouped frequency table.

Length  $\overline{L}$ 

(mm)

 $20 < L \le 30$ 

 $30 < L \le 40$ 

 $40 < L \le 50$ 

 $50 < L \le 60$ 

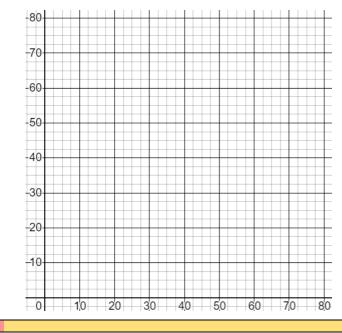
 $60 < L \le 70$ 

 $70 < L \le 80$ 

(a) Compl	ete a c	cumulative
frequency	table.	

Frequency	Length <i>L</i> (mm)	Cumulative Frequency	
4	$20 < L \le 30$		
7	$20 < L \le 40$		
15	$20 < L \le 50$		
23	$20 < L \le 60$		
22	$20 < L \le 70$		
9	20 < L ≤ 80		
	l .		

(b) Plot a cumulative frequency graph.



(c) Find the median length.

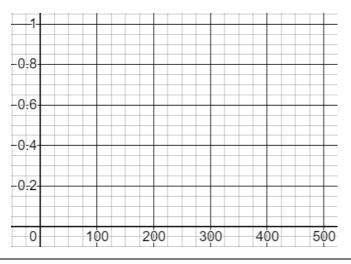
(d) Find the interquartile range of lengths.

(e) Find an estimate for the number of leaves greater than 75 mm in length.

**2.** The areas in  $m^2$  of 200 gardens are recorded in a grouped frequency table.

Area (m²)	Frequency	
$0 < A \le 50$	10	
$50 < A \le 100$	25	
$100 < A \le 200$	80	
$200 < A \le 300$	65	
$300 < A \le 500$	20	

(a) Plot a histogram.



(b) Use your histogram to estimate the number of gardens that are larger than  $220 m^2$ .

(c) Use your histogram to estimate the median garden size.