



Prove algebraically that $0.\dot{5}\dot{3}$ is equal to $\frac{8}{15}$

Max created a password for his computer. He uses 7 digits, 0 to 9.

Tally created a password for her computer. She uses 5 lowercase letters.

Who has more possible passwords to choose from?

Cost (p pounds)	Frequency
$0 < p \leq 2$	40
$2 < p \leq 4$	90
$4 < p \leq 5$	80
$5 < p \leq 8$	100
$10 < p \leq 20$	120

The table shows the cost of items in a shop. 10% of the items cost less than Y. Find an estimate of Y to the nearest penny.

The curve $y = x^2 - 3x - 4$ is reflected in the y-axis.

Find the equation of the new curve.

Solve the simultaneous equations

$$2x + y - 7 = 0$$

$$xy = 6$$