

**HIGHER TIER
MINI PRACTICE EXAM 9**



**NON-CALCULATOR
20 MINUTES ALLOWED**

1.

(a) Work out $(4.5 \times 10^5) + (3.26 \times 10^4)$. Give your answer in standard form.

(2)

(b) Work out $(1.5 \times 10^7) \div (5 \times 10^9)$. Give your answer in standard form.

(3)

2.

120 people were asked how many pets they have.

The results are shown in the frequency table below.

Number of pets	Frequency
0	17
1	2x
2	x
3	16
4	6

Find the mean number of pets that the people have.

(5)

3.

Expand and simplify: $(\sqrt{2} + 4)(3 - 2\sqrt{2})$

(2)

4.

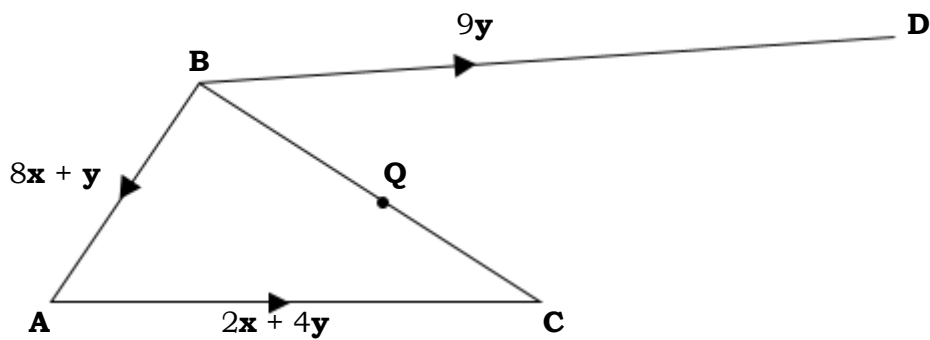
Prove that the sum of two consecutive odd numbers is always a multiple of 4.

(3)

5.

ABC is a triangle.

Q is the point on BC such that $BQ : QC = 3 : 2$.



Show that AQD is a straight line.

(5)