1 Nav has worked out $\frac{68.3 \times 42.8}{0.021}$ on his calculator.

His answer is 139 201.9048

Without using a calculator and using suitable approximations, check that his answer is sensible.
Show your working clearly.

For approximation :

let 68.3 = 70 ← round up

42.8 = 40 ← round down

0.021 = 0.02

$$\frac{70 \times 40}{0.02} \text{ (1)} = \frac{2800}{0.02} = \frac{2800}{\frac{2}{100}}$$

$$= \frac{280000}{2}$$

= 140 000 . Yes his answer is sensible . (1)

(Total for Question 1 is 2 marks)

2 (a) Complete the following estimates by writing a suitable metric unit on each of the dotted lines.

(i) The distance from Paris to Berlin is about 1000 ..... kilometres (km) (1)

(ii) A bucket holds about 5 ..... litres (l) ..... of water. (1)

(iii) The area of the screen of a mobile phone is about 90 ..... centimeter square (cm^2) (1)

(3)

(b) Write down an estimate for the height of a bedroom door in a house.
Use a suitable metric unit.

..... 2 (1) ..... metres (1) .....

(2)

(Total for Question 2 is 5 marks)

3 By writing each value correct to one significant figure, work out an estimate for the value of

$$\frac{8.23 \times 181}{0.482}$$

Show your working clearly.

$$\frac{8 \times 200}{0.5} = \frac{1600}{0.5}$$

$$= 3200$$

3200

(Total for Question 3 is 3 marks)