1 By rounding each number to the nearest 10, estimate the value of $262 \div 19.8$

[2 marks]

262 ↘ 260 , 19.8 ↘ 20 (1)

260 ÷ 20 = 13

Answer 13 (1)

2 Freddie tries to work out $\dfrac{29.15 + 83.47}{9.82}$

His answer is 37.65

By rounding each number to the nearest 10, show that his answer is incorrect.

[3 marks]

$\dfrac{30 + 80}{10} = \dfrac{110}{10} = 11$ (1) (1) (1)

3 The number of people living in a town is 47 000 to the nearest 1000

Which **one** of these is a possible number of people living in the town?

Circle your answer.

[1 mark]

46 000 46 500 47 500 48 000

1

4 By rounding each number to the nearest 10, estimate the value of 31×18

[3 marks]

30 × 20 = 600

(1) (1) (1)

Answer 600

5 Millie is estimating the value of $\dfrac{1}{\left(\sqrt[3]{8.34}\right)^2 \times 10.21}$

She rounds each decimal number to 1 significant figure.

5 (a) Work out Millie's estimate.

You **must** show your working.

[2 marks]

$\dfrac{1}{(\sqrt[3]{8})^2 \times 10} = \dfrac{1}{2^2 \times 10} = \dfrac{1}{40}$

(1) (1)

Answer $\dfrac{1}{40}$

5 (b) Millie says,

"My estimate must be more than the exact value."

Without working out the exact value, give a reason how she can know this.

[1 mark]

Both numbers are rounded down.

(1)