Estimation in context

How to . . .

Margaret has some goats.

The goats produce an average total of 21.7 litres of milk for 280 days.

Margaret sells the milk in $\frac{1}{2}$ litre bottles.

Work out an estimate for the total number of bottles that Margaret will be able to fill with the milk.

You must clearly show how you got your answer

(4)

Milk produced : 21.7 l   280 days
round this to   round this to
20 litres   300

Total milk : 20 × 300
= 6000 litres .

This needs to be put into X number of $\frac{1}{2}$ litre bottles
6000 ÷ $\frac{1}{2}$ (or $\frac{6000}{0.5}$)
= 12000 bottles .

Now have a go yourself . . .

SORTED IT – work out an estimate for the following

a) 69 X 58   **b)** 112 X 68

c) 295 X 19   **d)** 4897 X 38

e) 68 ÷ 1.9   **f)** 9.9 ÷ 4.9

g) 58.6 ÷ 6.1   **h)** 577 ÷ 97.8

NAILED IT - work out an estimate for the following

a) 6.4 x 0.38   **b)** 0.49 x 0.33

c) 12.1 x 0.128   **d)** 12.66 x 38

e) 5.4 x 0.32   **f)** 0.48 x 0.38

g) 0.069 x 2.7   **h)** 0.089 x 0.021

MASTERED IT work out an estimate for the following

a) $\dfrac{48.9 \times 9.9}{11.3}$ **b)** $\dfrac{203.8}{9.8 \times 4.9}$

c) $\dfrac{999.8}{5.1 \times 5.3}$ **d)** $\dfrac{9.55 \times 79.9}{11.8 \times 13.03}$

e) $\dfrac{10.45}{0.49}$ **f)** $\dfrac{9.8 \times 3.9}{0.14}$

g) $\dfrac{20.8}{0.41}$ **h)** $\dfrac{6.8 \times 2.9}{0.11}$

Exam Questions

Q1. The table shows the length of time in minutes and seconds of the tracks on a CD.

Track	1	2	3	4	5	6
Time	7m 56s	3m 5s	4m 8s	5m 58s	3m 57s	11m 48s

Estimate the total length of time for all the tracks on the CD.

(2)

Q2. Estimate in £s the cost of:

(i) an ice cream in Italy costing 3 euro
(ii) a T-shirt in USA costing £30
(iii) a meal in Japan costing 1500 yen
(iv) a drink in Turkey costing 10 lira
(v) a souvenir in Thailand costing 300 baht
(vi) a camera in China costing 2000 yuan

£1 buys you

1.1 euro

US$1.63

148 Japanese Yen

2.45 Turkish Lira

54.7 Thai baht

11.15 Chinese Yuan

(6)

Q3. The height of a room is 285 cm. The width of the room is 790 cm and the length is 880 cm. Building regulations state that for every person working in the room there must be 4.25 m^3. Calculate an estimate for the number of people who could work in the room. (3)

Ready to be marked ?

Checklist

- ☐ Answer checked
- ☐ Working out shown

Keywords

Things to remember ...

Don't forget

What went well ...

Teacher comment ..