3   Pablo is an artist.

He paints on canvas.
He uses different sizes of canvas but they all have their width and height in
the ratio 4:3

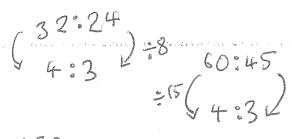(a) Which of the following canvas sizes could he use?

(32 cm by 24 cm)   (60 cm by 45 cm)

100 cm by 70 cm   120 cm by 90 cm

Circle the correct answer(s).

$\left(\dfrac{32:24}{4:3}\right) \div 8$ $\begin{matrix}60:45\\ \div 15\left(\dfrac{}{4:3}\right)\end{matrix}$

$\left(\dfrac{100:70}{10:7}\right) \div 10$ [3] $\left(\dfrac{120:90}{4:3}\right) \div 30$

(b) Write down another canvas size that he could use that is not given in
the list above.

$400 cm : 300 cm$ $12 cm : 9 cm$

Answer _____ [1]
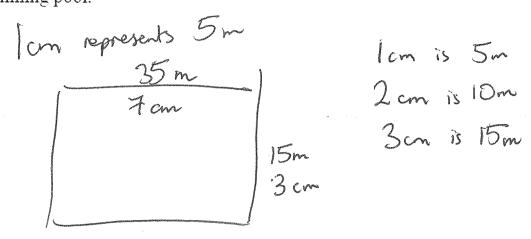
6.   Work out, giving each answer in standard form.

(a)

$(3 \times 10^4) \div (6 \times 10^{-3})$

0.5×10^7
$5.0 \times 10^{-1} \times 10^7$

no-
calculator $\dfrac{3}{6} \times \dfrac{10^4}{10^{-3}}$

$\underline{5.0 \times 10^6}$
(2)

(b)

$(2.1 \times 10^{-5}) \div (7 \times 10^{-4})$ 0.5×10^7

$\dfrac{2.1}{7} \times 10^{-5} \div 10^{-4}$

$0.3 \times 10^{-5--4}$
0.3×10^{-1}

$0.3 \times 10^{-5} \div 10^{-4}$

....
(2)

$3.0 \times 10^{-1} \times 10^{-1}$
3.0×10^{-2}

8   (a)   A rectangular swimming pool measures 35 m by 15 m.

Use a scale of 1 cm to represent 5 m and make an accurate drawing of the swimming pool.

1 cm represents 5m

35 m
7 cm

15m
3 cm

1 cm is 5m
2 cm is 10m
3 cm is 15m

[2]

(b)   Using your scale drawing find the actual length of the diagonal which goes from one corner to another.

Answer _____ [2]