

Quiz 3A, MTH 2010 - No Calculators

Dr. Graham-Squire, Fall 2014

10:52
10:57
5

⇒ give 20 min.

Name: Key

1. (2 points) (a) Multiply

$$\begin{array}{r}
 1.37 \\
 \times 4.8 \\
 \hline
 1096 \\
 5480 \\
 \hline
 6576
 \end{array}$$

6.576

(b) Explain how you can use estimation to figure out the appropriate place to put the decimal.

I know $1.37 \approx 1$ and $4.8 \approx 5$, so $1 \times 5 = 5$.

Thus the decimal should go between the 6 and 5 (in 6576) because that would give me an answer of 6.576, which is closest to 5.

2. (3 points) Given that 10 cm is approximately equal to 4 inches, which of the following expressions models a way to find approximately how many inches are equivalent to 350 cm?

(A) $350 \times \left(\frac{10}{4}\right)$

$10 \text{ cm} \approx 4 \text{ inches}$

(B) $350 \times \left(\frac{4}{10}\right)$

~~$350 \text{ cm} \approx 35.4$~~

⇒ $1 \text{ cm} \approx \frac{4}{10} \text{ in.}$

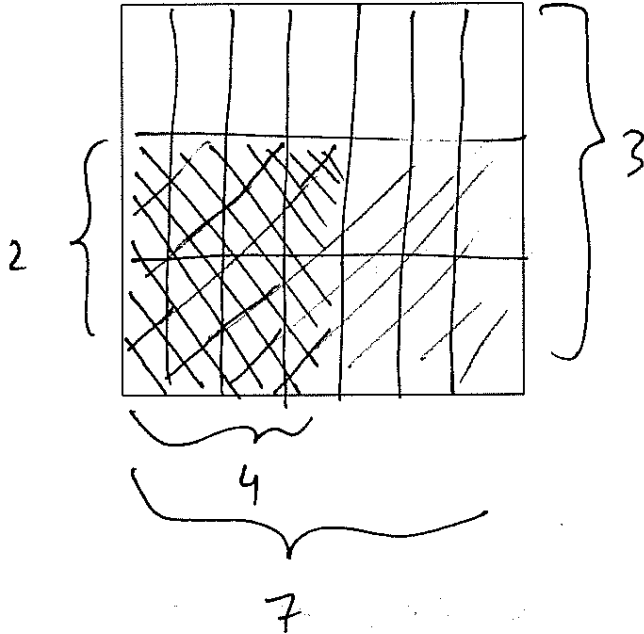
(C) $(10 - 4) \times 350$

$350 \text{ cm} \approx 350 \cdot \frac{4}{10} \text{ in.}$

(D) $(350 - 10) \times 4$

12 if eliminate most wrong answers.

3. (2 points) $\frac{2}{3}$ of the class has strep throat. $\frac{4}{7}$ of the students with strep are wearing cute sneakers. What fraction of the class has both strep *and* cute sneakers? Calculate the answer and use the square below to make a diagram to represent the fraction calculation.



$$\frac{2}{3} \cdot \frac{4}{7} = \frac{2 \cdot 4}{3 \cdot 7} = \frac{8}{21}$$

8 out of 21 total.

4. (3 points) Use the expression below to answer the question that follows.

$$3.2 \times 10^5 + 1.6 \times 10^2$$

Which of the following is closest to the expression above? Show your work!

(a) Fifty million

(b) Five hundred thousand

(c) Thirty million

(d) Three hundred thousand

$$3.2 \times 10^5 = 320,000$$

$$1.6 \times 10^2 = 160$$

$$320,000 + 160 = 320,160$$

$$\approx 300,000$$