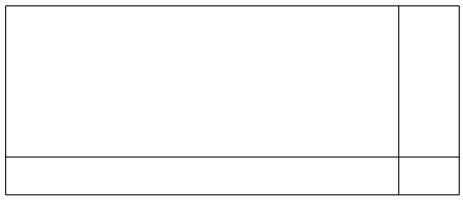
Quiz 3A, MTH 2010 - No Calculators

Dr. Graham-Squire, Spring 2015

Name: _____

1. (2 points) Below is an example multiplication using the partial products algorithm. Use either the distributive property or the array given below to explain where the parts of the calculation come from.

$$\begin{array}{rrrrr} & & & 5 & 7 \\ & & \times & 2 & 4 \\ \hline & & & 2 & 8 \\ & & 2 & 0 & 0 \\ & & 1 & 4 & 0 \\ + & 1 & 0 & 0 & 0 \\ \hline & 1 & 3 & 6 & 8 \end{array}$$



2. (3 points) Which of the following points is closest to $\frac{183}{114} \times \frac{63}{79}$? Show your work!

(a) A

(b) B

(c) C

(d) D

3. (2 points) Use properties of arithmetic to show/explain how you could make the following problem easy to do *mentally*. You can use words and/or mathematical equations to explain your work (full credit will *not* be given if you simply use a multiplication algorithm to find the answer):

$$24 \times 25$$

4. (3 points) Which of the following is the best approximation for the value of

$$\frac{(1.8 \times 10^3) \times (3.4 \times 10^8)}{2.1 \times 10^4}$$

Show your work!

(A) Thirty million

(B) Three million

(C) Three hundred thousand

(D) Thirty thousand