

MATH 150 QUIZ 1 - Version B

September 11, 2013

Name: ANSWER KEY

Instructions: Use your own scrap paper. Write your answers in the space provided.

1. (1 point each) Evaluate:

(a) $\frac{1}{2} + \frac{1}{9} = \underline{\frac{11}{18}}$ (b) $\frac{1}{6} - \frac{1}{5} = \underline{-\frac{1}{30}}$

(c) $\frac{2}{3} \times \frac{4}{5} = \underline{\frac{8}{15}}$ (d) $\frac{3}{4} \div \frac{6}{5} = \underline{\frac{5}{8}}$

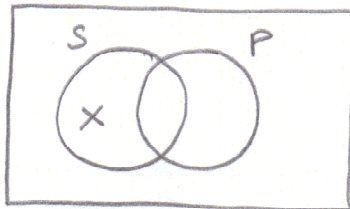
2. (1 point each) Write each of the following as a common fraction. You need not reduce it.

(a) $0.001 = \underline{\frac{1}{1000}}$ (b) $1.64 = \underline{\frac{164}{100} \text{ or } 4\frac{1}{25}}$

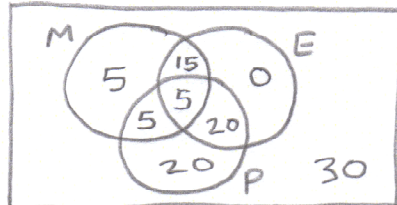
3. (1 point each) Evaluate the following:

(a) $10^3 \times 10^{-5} = \underline{10^{-2}}$ (b) $\frac{10^3}{10^{-1}} + 10^3 = \underline{11000}$

4. (1 point) Draw a Venn diagram to illustrate the categorical proposition Some S are not P .



5. (a) (2 points) In a school of 100 students, 30 students study math; 40 students study English; 50 study physics; 10 study both math and physics; 20 study math and English; 5 study math, English and physics; and 20 study only physics. Draw a Venn diagram to illustrate this scenario.



(b) (1 point) How many students study math only? 5

Bonus: (1 point) What is a *valid* argument?

An argument in which the conclusion necessarily follows from the premises (if the premises are true, then the conclusion must be).