

**Math 105 Ch 5 and 6  
Practice Exam**

**NAME** \_\_\_\_\_

You must show your work to receive full credit. Underline, circle or otherwise indicate your final answer.

1. Evaluate the given expression.

a)  $\frac{2}{3} + \frac{1}{2} \div 3 - \left(\frac{1}{2}\right)^2$  ans:  $\frac{7}{12}$

b)  $6^2 - 3(18 \div 3) \div 9$  ans: 34

c)  $3^3 - 4(2 \cdot 3) \div 12$  ans: 25

d)  $8^2 \div 2 - 4(12 \div 3) - 4^2$  ans: 0

2. Solve the following.

a) 19% of 1800 is what number? ans: 342

b) 28.5 is what percent of 75? ans: 38%

c) 23.32 is  $5\frac{3}{10}\%$  of what number? ans: 440

C) What number is 125% of 150? ans: 187.5

3. Write each percent as a decimal.

a) .015% ans: 0.00015

b) 206% ans: 2.06

4. Write each decimal or fraction as a percent.

a) 0.341 ans: 34.1%

b)  $1\frac{3}{4}$  ans: 175%

5. Write each percent as a fraction in simplest form.

a) 21.6% ans:  $\frac{27}{125}$

b)  $8\frac{3}{4}\%$  ans:  $\frac{7}{8}$

6. For each proportion, find the unknown number  $n$ .

a)  $\frac{\frac{1}{2}}{1\frac{1}{3}} = \frac{n}{8}$  ans:  $n = 3$

b)  $\frac{4}{0.6} = \frac{5}{n}$  ans:  $n = 0.75$

8. Write each fraction as a decimal number.

a)  $\frac{7}{9}$  round to nearest thousandth ans: 0.7780

b)  $\frac{11}{15}$  round to nearest hundredth ans: 0.730

9. Carlos can type 680 words in  $3\frac{3}{4}$  minutes. To the nearest whole word, how many words per minute can he type?

ans: 181

10. On a blueprint 1 inch corresponds to 8 feet. Find the actual length of a wall represented by a line  $6\frac{3}{5}$  inches long on the blue print. ans: 52.8

11. The Acme furniture company currently produces 4840 chairs per month. If production decreases by 15%, find the decrease and the new number of chairs produced each month.

ans: decrease: 726, produced per month: 4114