

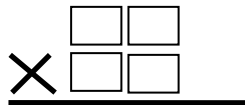
## Exam One Review

1. A rectangular field is to be enclosed with 1130 ft of fencing. If the length of the field is 65 ft longer than the width, then how long is the field?

2. Place the digits 1, 2, 3, 7, and 8 in the following boxes so that the greatest quotient is obtained.



3. Place numbers 2, 3, 7, 8 in the squares below to obtain the greatest product.



4. Alamo, Brushy, Chet, and Dolly are in an armadillo race. Chet is the slowest. Dolly is faster than Alamo, but slower than Brushy. Name the finishing order of the armadillos.

5. List the terms that complete a possible pattern in each of the following:

(a) 38, 33, 28, 23, 18, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

(b) 640, 320, 160, 80, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

(c) 4, 8, 16, 32, 64, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

6. Classify each of the sequences in Problem 5 as arithmetic or geometric. Explain your solution in each case.

(a)

(b)

# Exam One Review

(c)

7. Find the first five terms of the sequences with the  $n^{\text{th}}$  term given as follows:

(a)  $5n + 5$  \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

(b)  $n^2 + 2n + 1$  \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

(c)  $2^n$  \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

8. Find the following sum:  $6 + 8 + 10 + 12 + \dots + 100$ .

9. Classify the statements as true or false.

(a)  $1 + 4 = 6$  \_\_\_\_\_

(c) Butte is the capital of Montana. \_\_\_\_\_

(d)  $3 + x = x + 3$  \_\_\_\_\_

10. Negate the following statements.

(a)  $3x > 6$  \_\_\_\_\_

(b) All natural numbers are integers. \_\_\_\_\_

11. State the converse, inverse, and contrapositive for the following statement.

If every **digit** of a number is divisible by 3 then the **number** is divisible by 3.

(a) Converse \_\_\_\_\_

(b) Inverse \_\_\_\_\_

(c) Contrapositive \_\_\_\_\_

## Exam One Review

12. State a valid conclusion for the following statements:

- If a person can do all the problems assigned for homework in their college course then they will pass the final exam in that college course.
- Kirsten did not pass her Math 101 college course final exam.

THEREFORE:

13. Write each of the following in the indicated base.

(a)  $1011_{\text{two}}$  to base ten \_\_\_\_\_

(b)  $157_{\text{four}}$  to base ten \_\_\_\_\_

14. Write 27 in each of the following bases:

(a) Five

(b) two

(c) seven