

Name:

Date:

Period:

HW #2-10: Test Review (no proofs)

NO WORK = NO CREDIT! ... Box answers when appropriate ... Exact answers unless otherwise stated

Complete the following questions on a separate sheet of paper.

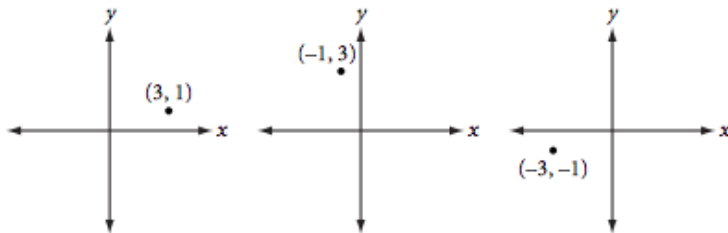
Show all work as if it were the actual exam.

Questions on this review sheet are similar to what you may encounter on the exam.

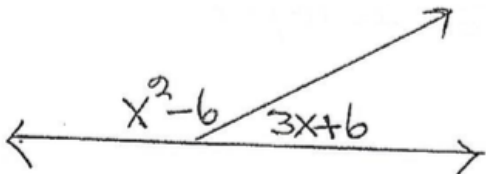
You may use a calculator.

CHECK YOUR ANSWERS ON THE CLASSROOM WEBSITE!

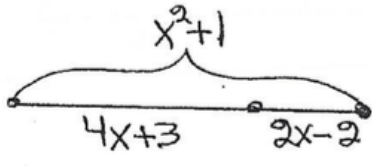
1. True or False?
 - a. All definitions are true.
 - b. The contrapositive of a definition is true.
 - c. Deductive reasoning leads to a counterexample.
 - d. If two angles are acute, then they are complementary.
2. What is the hypothesis to the statement “If an animal is a bird, then it is an eagle”? What is the conclusion?
3. If $a \rightarrow b$ is the conditional statement, write the converse, inverse, and contrapositive in terms of a and b .
4. Is the statement “If $x^2=16$, then $x=4$ ” true or false? If it is false, provide a counterexample.
5. Write the Law of Syllogism using p , q , and r .
6. Determine if this conjecture is valid and if so, by which Law of Logic (Detachment or Syllogism).
Given: If Mika goes to the beach, she will wear sunscreen.
Conjecture: Mika is wearing sunscreen.
7. Draw the next item in the pattern.



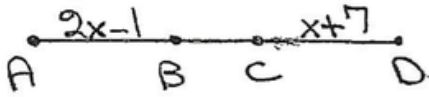
8. What would be a logically equivalent statement to “If an animal is a bird, then it is an eagle”?
9. Write the converse, inverse, and contrapositive of the following statement: “If you lead, then I will follow”
10. Write the Vertical Angles Congruence Theorem as a conditional statement.
11. Write the definition of supplementary angles as a biconditional statement.
12. Find the value of x .



13. Find the value of x .



14. Find x if $\overline{AC} \cong \overline{BD}$



15. Solve the algebraic equation. Justify each step.

$$\frac{1}{5}x + 3 = 2x - 24$$

16. Complete #2-6 on pg. 119 of your textbook.