

Name:

Date:

Period:

HW #3-13: Test Review (part 1)

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

Complete the following questions on a separate sheet of paper.

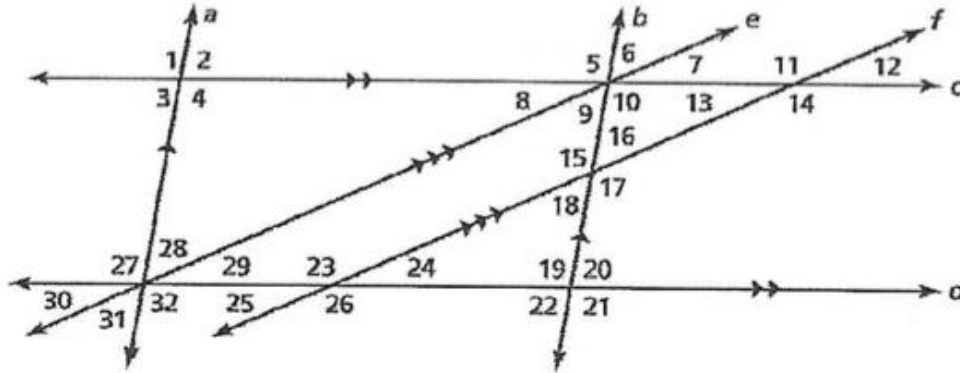
Show all work as if it were the actual exam.

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!

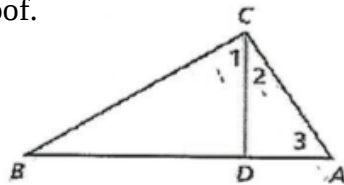
1. Given $m\angle 1 = 24^\circ$ and $m\angle 8 = 20^\circ$, find the measures of the rest of the numbered angles.



2. Use the diagram from #1 to find ALL angles that match the statements below:
- $\angle 15$ and _____ are corresponding angles.
 - $\angle 23$ and _____ are consecutive interior angles.
 - $\angle 9$ and _____ are alternate interior angles.
 - $\angle 11$ and _____ are alternate exterior angles.
3. Determine if the statement is true or false. If it is false, provide a counterexample.
"Two lines are skew if and only if they do not intersect."

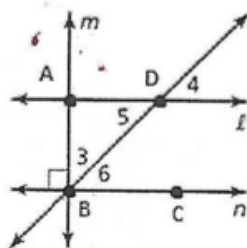
4. Write a two-column proof.

Given: $\overline{AC} \perp \overline{BC}$
 $\angle 3$ comp $\angle 1$
Prove: $\angle 3 \cong \angle 2$
 (approx. 11 steps)

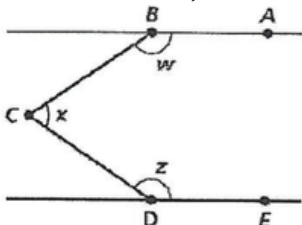


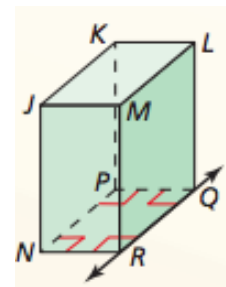
5. Write a two-column proof.

Given: $m \perp n$
 $\angle 3$ comp $\angle 4$
Prove: $\angle 5 \cong \angle 6$
 (approx. 11 steps)



6. Given $\overline{AB} \parallel \overline{DE}$, $m\angle w = 135^\circ$ and $m\angle z = 147^\circ$, find $m\angle BCD$.

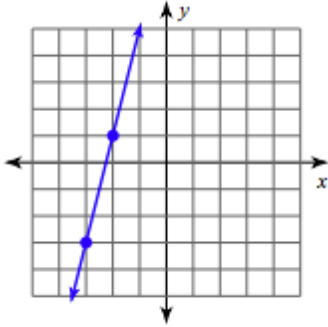




7. In the diagram, which line(s) are skew to $\overleftrightarrow{QR}$? Parallel? Perpendicular?

8. The angles formed by two lines and a transversal are labeled 1 through 8. If $\angle 2$ and $\angle 3$ are alternate exterior angles and $\angle 3$ and $\angle 4$ are corresponding, how would you classify $\angle 2$ and $\angle 4$?

9. What is the equation (in slope-intercept form) of the line given by the graph?

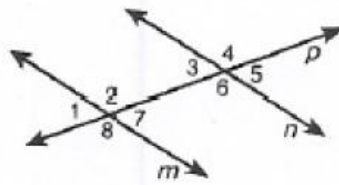


10. What is the slope of the line PARALLEL to the line in #9?

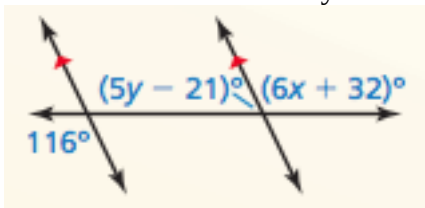
11. Write the equation (in standard form) of the line that COINCIDES with the line in #9.

12. Given the diagram, what information could be used to prove the lines are parallel using...

- alternate interior angles?
- consecutive interior angles?
- alternate exterior angles?
- corresponding angles?



13. Find the values of x and y.



14. Solve the system of equations.

$$-4y - 11x = 36$$

$$20 = -10x - 10y$$

15. Solve the quadratic.

$$b^2 + 5b - 35 = 3b$$