A.M.D.G.

Use the Segment Addition Postulate to solve for missing segment lengths 1c 1d 1e 1j 1n 3a 3b 3f 3h 3n 30 5a 5b 5c 5e 5h 5i 5j 5k 51

Final Exam Standards (Fill in the rest on your own)

To maximize your understanding and success on the fall final exam:

- 1. Review all your quizzes and tests from this semester.
- 2. Do the practice problems below.
- 3. Enlist help from classmates, teachers, relatives, etc.
- 4. Redo HW problems from topics you feel less confident with.
- 5. Do some Study Guide Review problems from the end of each chapter in the book
- 1. Which of the following is a line parallel to the line 5x + 3y = 15?

[A]
$$y = -5x + 16$$
 [B] $y = \frac{5}{3}x + 16$ [C] $y = \frac{3}{5}x + 16$ [D] $y = -\frac{3}{5}x + 16$ [E] $y = -\frac{5}{3}x + 16$

2. Find the value of the variables.



3. Solve for all variables.
a) If EF = w² and EH = 8w + 20, find the value(s) of w.





4. Given *Q* is the midpoint of \overline{PF} , find the values of *w* and *y* and use the results to prove $\Delta PQT \cong \Delta FQM$. Then use your proof to solve for *x* and find *PT* and *FM*.



- 5. For each of the problems below, determine whether or not you can prove the triangles congruent. If you can, which congruence postulate/theorem you would use to prove congruence. Make sure you mark the diagram to demonstrate which parts you are using in your congruence statement.
 - a) b) $f = \frac{1}{\sqrt{2}} \frac{1}{\sqrt{2}}$







6. In the diagrams below, solve for *x*, *y* and *z*.a) b)



7. Solve for x and y.



8. Given that *F* is a point on \overline{AI} , $AF = y^2 + 2y$, FI = y + 11, and AI = 8 - y, sketch the situation. Then find all possible values for *y*, *AF*, *FI*, and *AI* assuming that all measures are in inches. Name the postulate that allows you to set up this problem.

9. Given $m \angle RPT = 82^\circ$, $m \angle RPQ = 2x^2 - 16x + 23$, and $m \angle QPT = 29 - 12x$, if \overrightarrow{PQ} divides $\angle RPT$ into $\angle RPQ$ and $\angle QPT$ solve for x and determine whether \overrightarrow{PQ} is an angle bisector. Sketch the situation below.

10. Given the diagram below, solve for x and y. Name the theorem or postulate that allows you to set up your initial equation for each of these. Use your solutions to prove that $l \parallel m$



11. Find the equation of the line passing through the points (-3, -5) and (4, 8). Then find the equation of the lines parallel and perpendicular to that line that passes through the point (-2, 1).

12. Find all values of x and y that will make $L_1 \parallel L_2$.

