

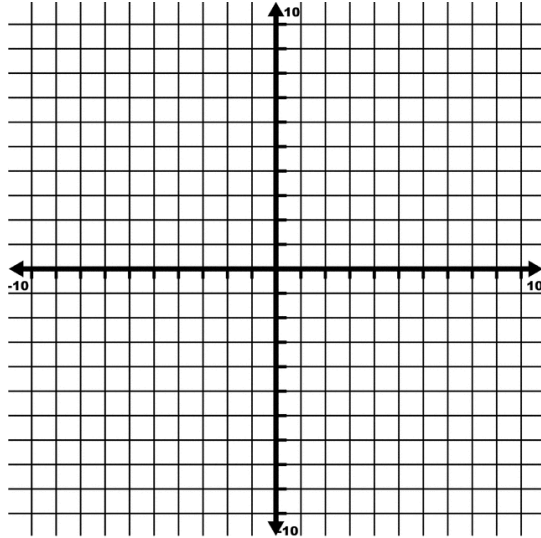
INTERMEDIATE ALGEBRA II
DIAGNOSTIC EXAM

Name: _____ Group: _____

Instructions: Solve correctly the following problems. Cell phones and calculators are not allowed. Write your procedure and operations. Answers without procedure are not valid (zero points).

Consider the equations $x + y = 4$ and $3x - 2y = 5$.

1. Graph both equations in the cartesian plane.



2. Find the intersection of both lines.

3. Solve the following equation system:

$$x + 2y - z = 4$$

$$2x + y + z = -2$$

$$x + 2y + z = 2$$

4. Write the Law of sines:

5. Write the Law of cosines:

6. Prove that $\sin \theta \csc \theta = 1$