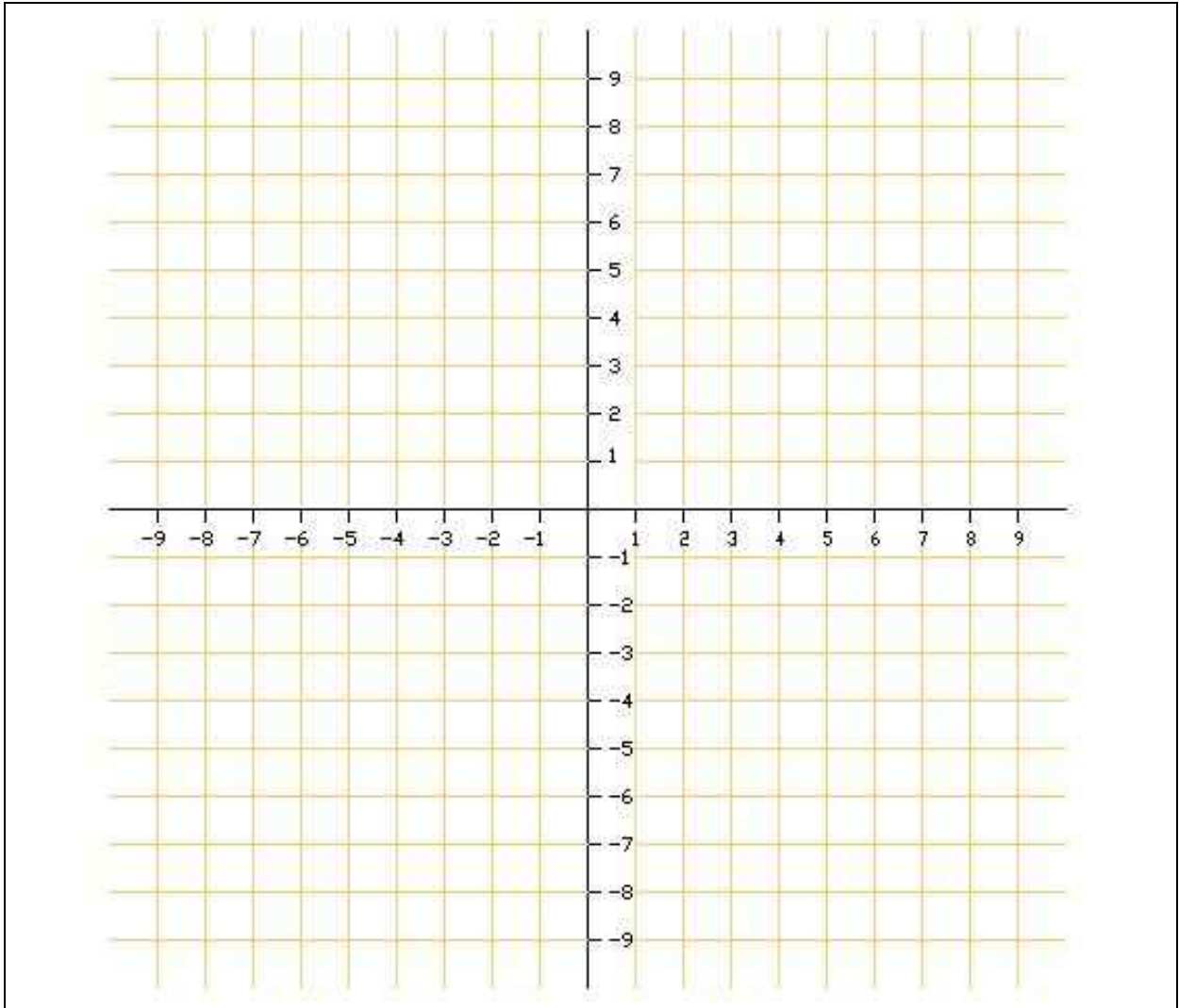


# Algebra For Designers Final

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Plot the points P1 (-2,-3) and P2 (4,6) on the graph and write the formula for the line.

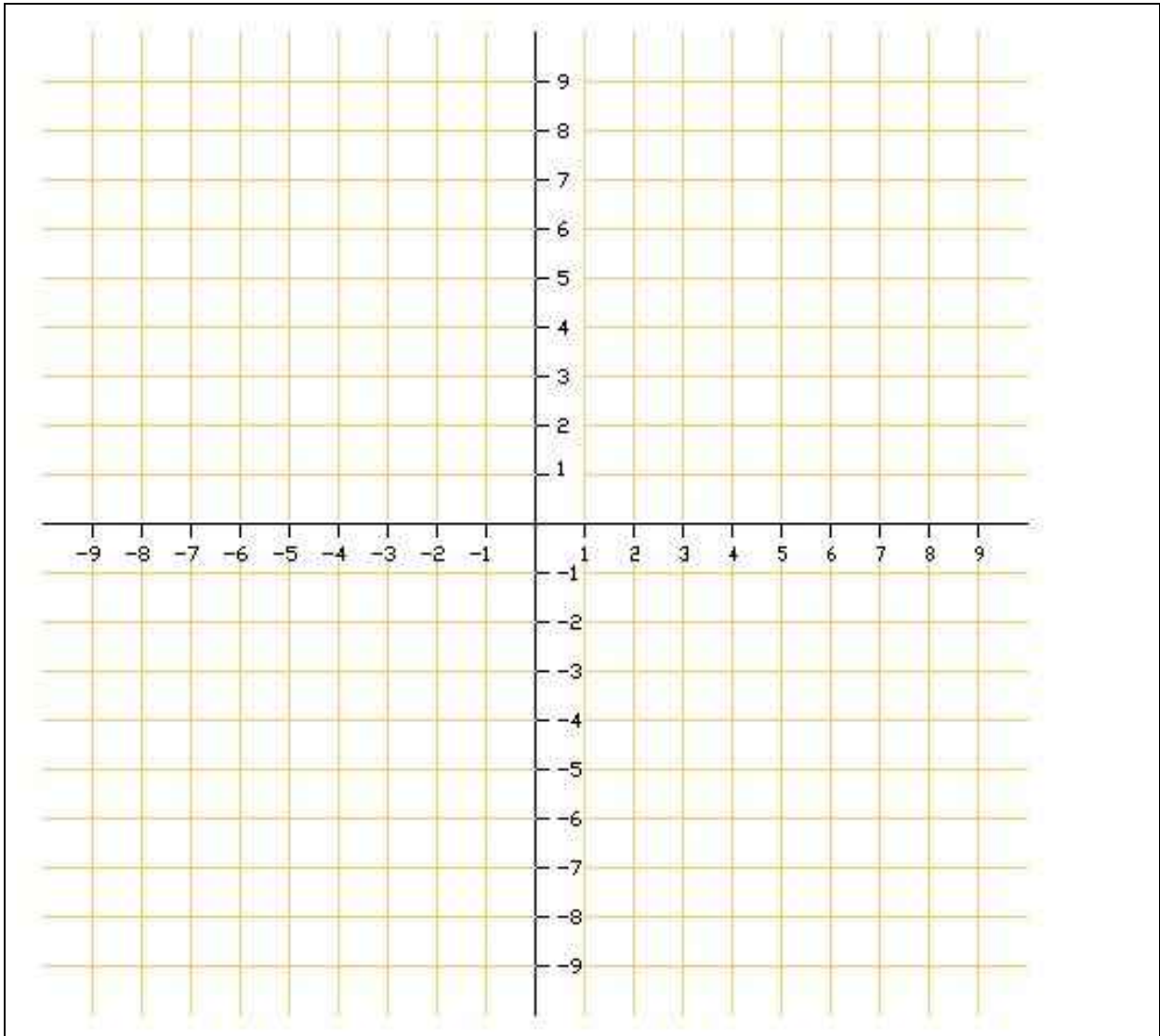


Blank space for writing the formula for the line.

## Algebra For Designers Final

2. Plot the following lines on the grid and label them.

- a.  $y = 2x + 4$
- b.  $2y = 3x - 5$
- c.  $-x = y + 1$

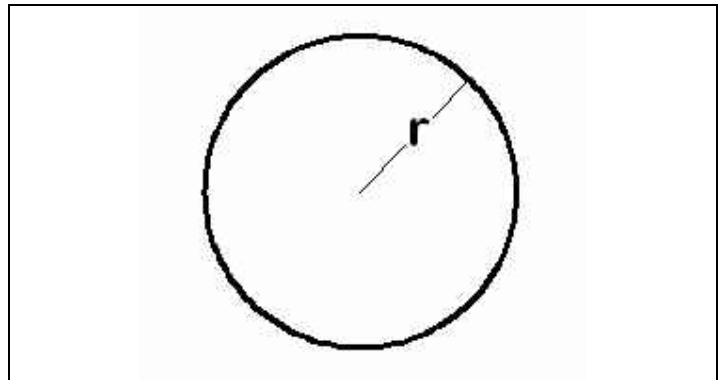


3. Simplify  
 $(3x + y)(x - 3y)$

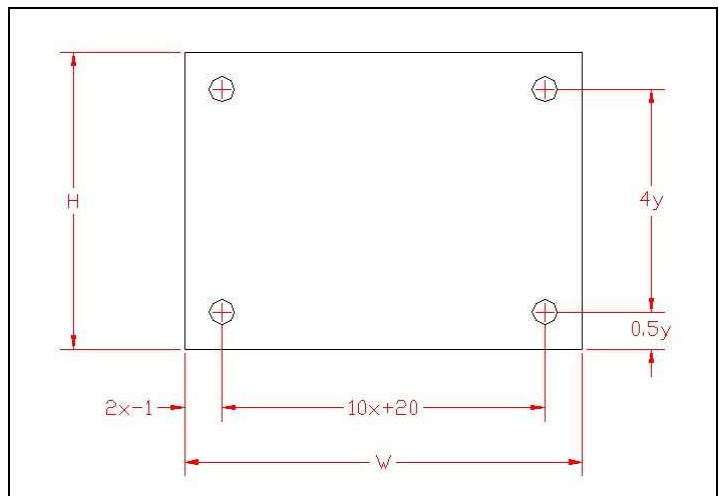
## Algebra For Designers Final

4. Simplify  $\left(\frac{1}{2}xy^2 + 2z\right)^2$

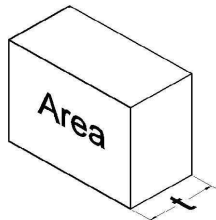
5. If the area of the circle is  $9x^2$  then what is the radius  $r$ ?



6. Solve for H and W



7. Fill in the blanks in the table.



Volume	Area	t
$16a^4b^6$	$a^2b^6$	
$9s+3t$		3
	$10m+1$	$2n$

Algebra For Designers Final

8. Determine the volume of a pipe that has the following values.

Variable	Description	Value
ID	Inside diameter in inches	0.75 in.
OD	Outside diameter in inches	1.0 in.
H	Height in inches	24.00 in.

9. What is the surface area of the pipe in problem 9? What is the volume of cadmium if a thickness of 0.0002 inch is applied?

10. Create a formula for the volume of the rectangular tube.

