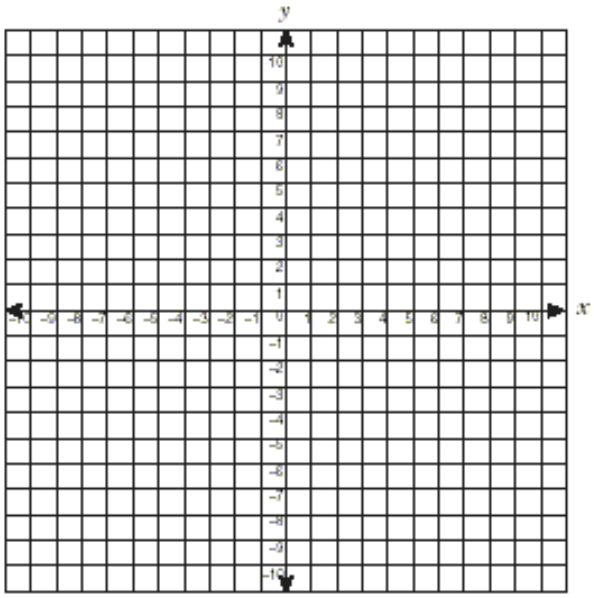
Period: _____ Name: _____

***Chapter 4 Extra Practice Test**

Systems of Equations & Linear and Quadratic Inequalities

Show all of your work.

1) Solve the system by graphing : $y = \frac{1}{2}(x-1)^2 - 4$ and $y = 2x^2 - 4x - 8$



ANSWER(S):

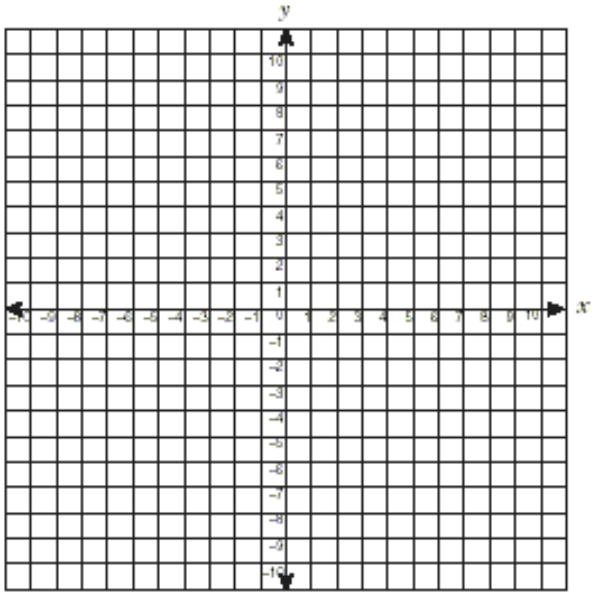
2) Solve the system by substitution: $x^2 - y = 3$ and $3x - y = -7$

ANSWER(S):

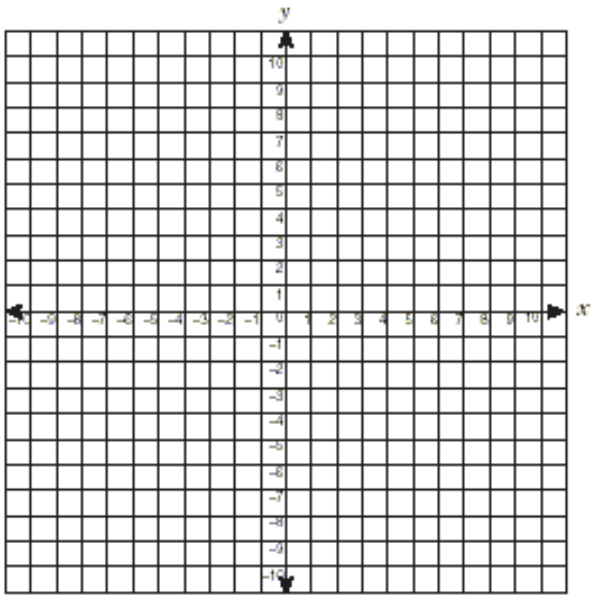
3) Solve the system by elimination (3 marks): $3x^2 - 10y = 5$ and $x - y = -2$. Any solutions that are fractions should be answered as fractions in lowest terms, and not as decimals.

ANSWER(S):

4) Solve the inequality by graphing: $x - 3y \leq 3$

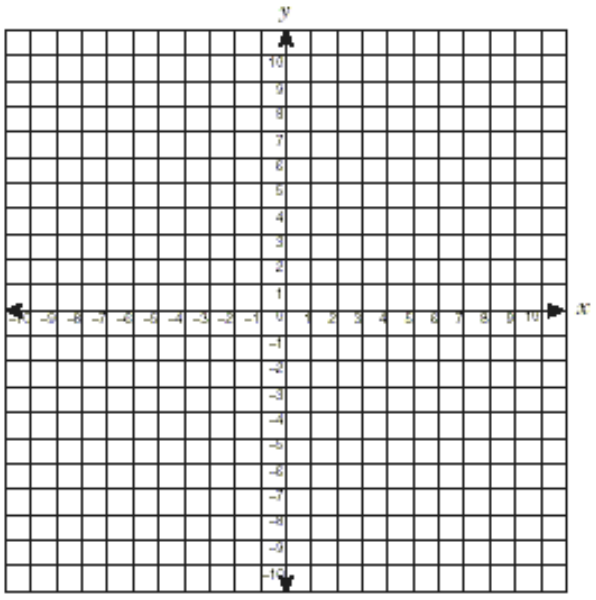


5) Solve $-5x^2 \leq 17x - 12$ and graph the solution on a number line.



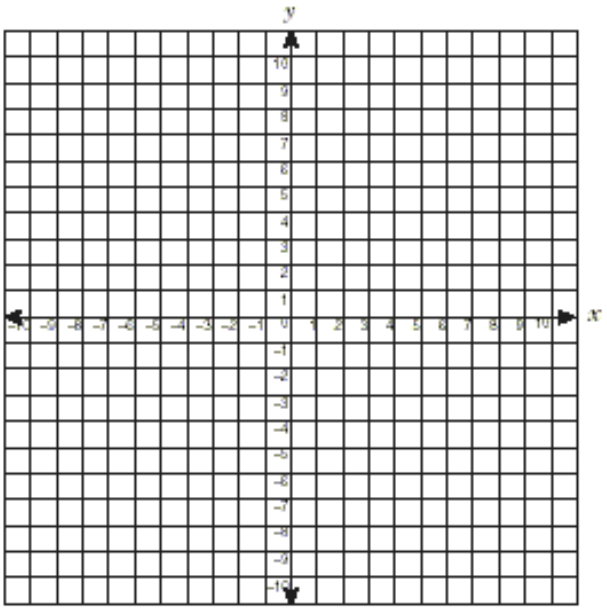
ANSWER:	NUMBER LINE:

6) Solve the inequality by graphing: $y \geq -x^2 + 6x - 5$

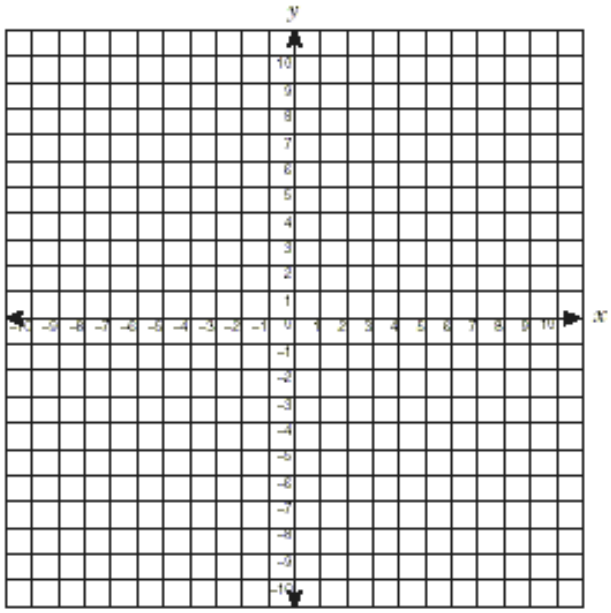


7) Solve the inequality by graphing: $y \geq \frac{1}{2}x^2 + 2x - 1$

*(hint: the **solution** to this is the correct boundary and shading!)*

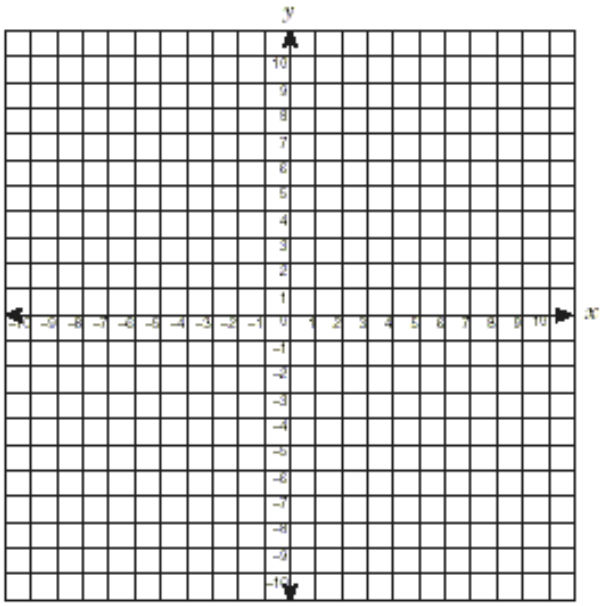


8) The length of a rectangle is 2 metres more than the width, and the area is **less than 63** m^2. What is the range of values for the **width** of the rectangle?



SENTENCE ANSWER:

9) The height in metres of a ball thrown upward from the ground is $h(t) = -5t^2 + 30t$, where t is the time in seconds after releasing the ball. During what time interval will the ball be **above 35 meters**? (3 marks)



SENTENCE ANSWER: