

Graph the following inequalities on the coordinate plane. Name one point that is a solution to the inequality and one point that is not a solution. Show algebraically and graphically that your points are correct.

7. $y \leq 3x + 4$

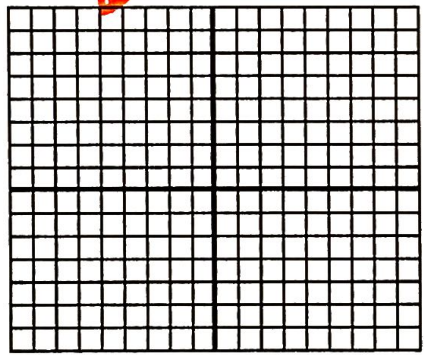
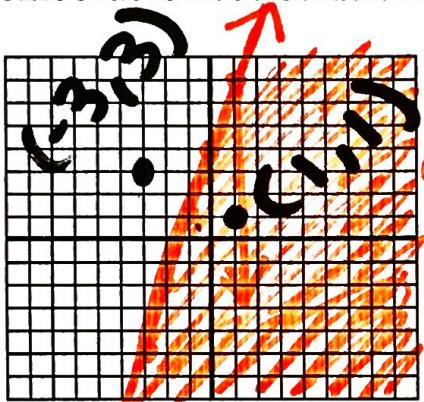
(1,1): $1 \leq 3(1) + 4$
 $1 \leq 3 + 4$
 $1 \leq 7 \checkmark$

(-3,3): $3 \leq 3(-3) + 4$
 $3 \leq -9 + 4$
 $3 \leq -5$

9. $y > \frac{3}{5}x + 2$

NOT a solution!

dotted!



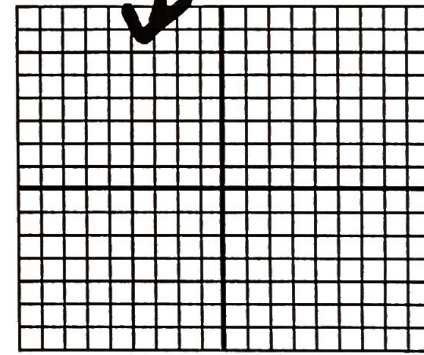
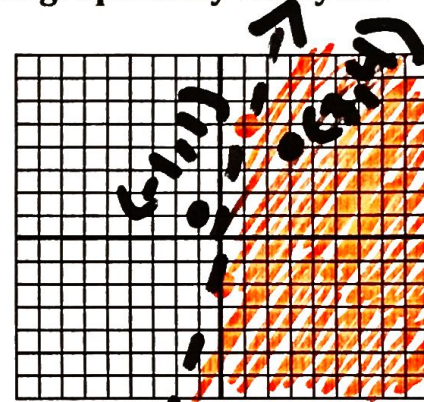
dotted line

8. $y < 7x - 2$

(-1,1): $1 < 7(-1) - 2$
 $1 < -7 - 2$
 $1 < -9$

10. $y \geq -6$

Solid!



(3,4): $4 < 7(3) - 2$
 $4 < 21 - 2$
 $4 < 19 \checkmark$

(1,5): $5 < 7(1) - 2$
 $5 < 7 - 2$
 $5 < 5$