

Solve and plot $2x-3>-4$

1) What's the inverse of subtracting 3? Adding 3

$$2x-3+3>-4+3 \quad \text{setup the addition of 3}$$

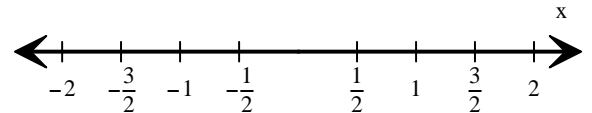
$$2x>-1 \quad \text{complete the addition}$$

2) What's the inverse of multiplication? Division

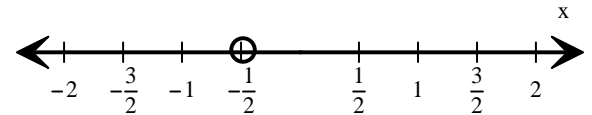
3) Setup the division by 2 on both sides: $\frac{2x}{2}>\frac{-1}{2}$

Complete the division: $x>\frac{-1}{2}$

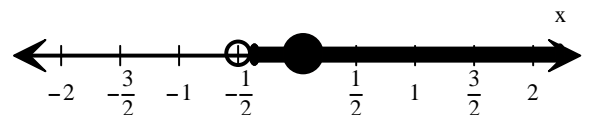
4) Draw a number line:



5) Mark $x=\frac{-1}{2}$ with an open point:



6) Shade to the right of $\frac{-1}{2}$:



7) Use $x=0$ to check: $2(0)-3>-4$

$$-3>-4 \text{ true}$$