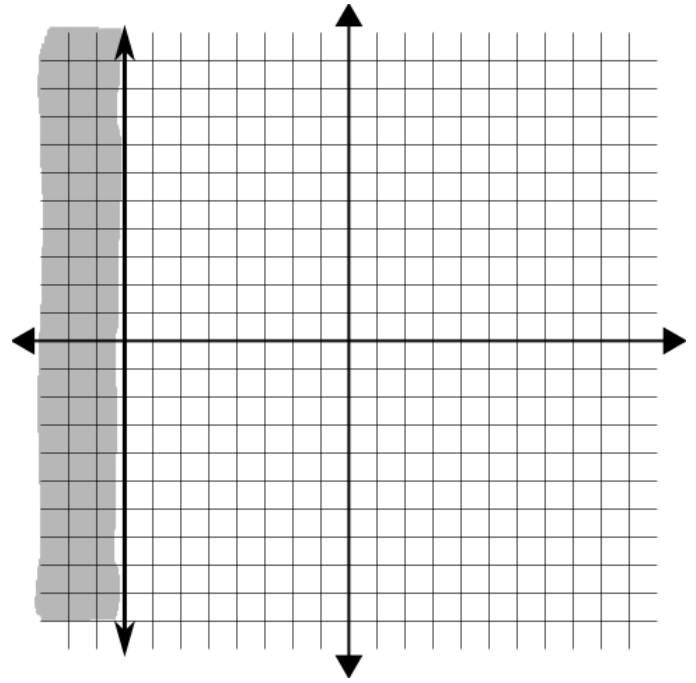
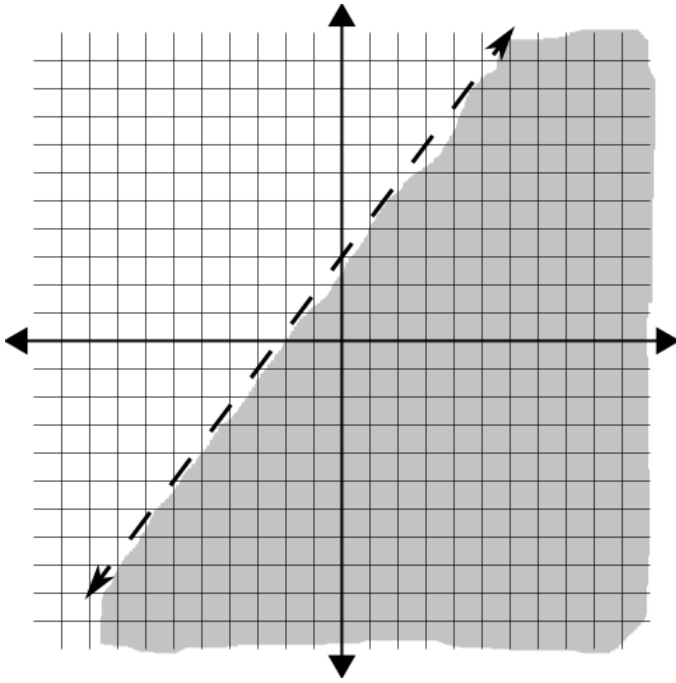


8A Review Day 4

Write an inequality for each of the following graphs.



Find the first four terms of the following sequences.

$$\begin{cases} f(n) = -3 + f(n-1) \\ f(1) = 22 \end{cases}$$

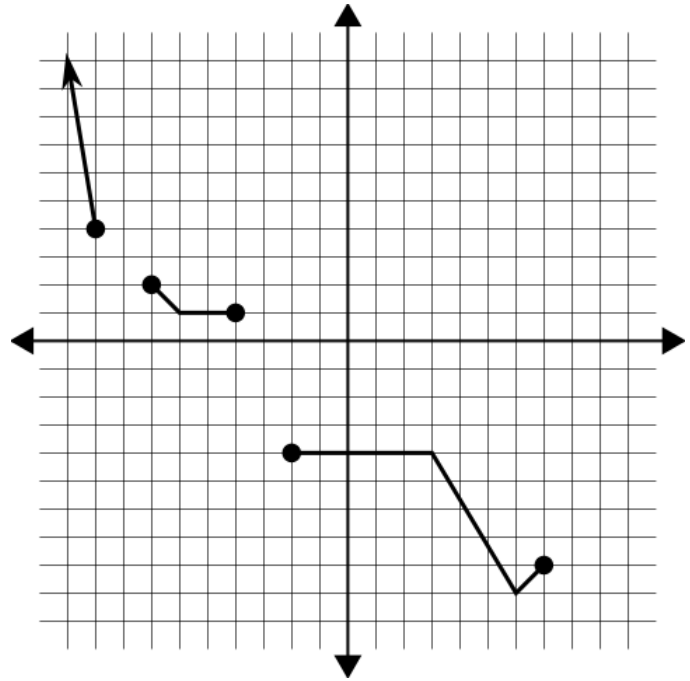
$$g(n) = \frac{3}{5} \cdot (-5)^{n-1}$$

Write an equation for the line passing through the following points.

$(-6, 12)$ and the origin

$(5, 8)$ and $(-3, 14)$

Write the domain and range of the function in interval notation and in set notation.



Esther decides to pursue a career in nuclear medicine and starts performing PET scans in her garage. To do so, she obtains 433 kilograms of Carbon-11, a radioisotope often used to study neurotransmitters in the brain. Carbon-11 has a half-life of 20 minutes. Write an equation for a function modeling the amount of Carbon-11 remaining after x minutes.

How much Carbon-11 is left after 5 hours?

When will there be less than a gram of Carbon-11 left?

Write the solution set for each inequality in interval form.

$$-3x + 5 + x \geq 11x - 18$$

$$5(-x + 4) < 6 - 2(-3x + 1)$$