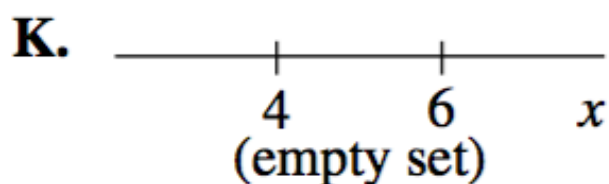
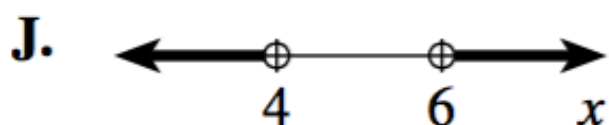
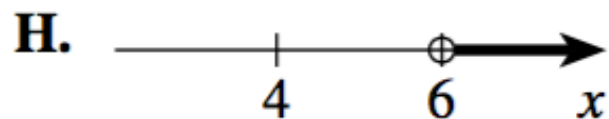
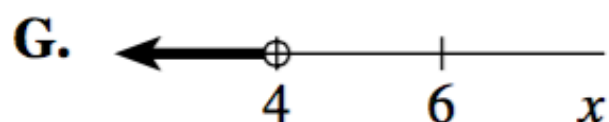
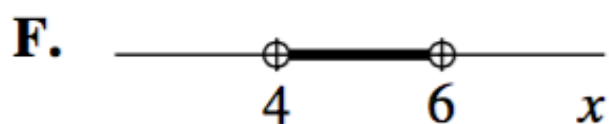
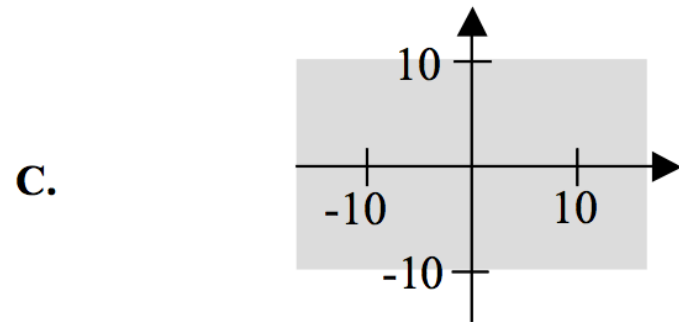
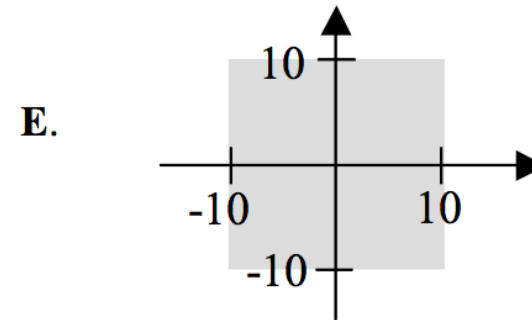
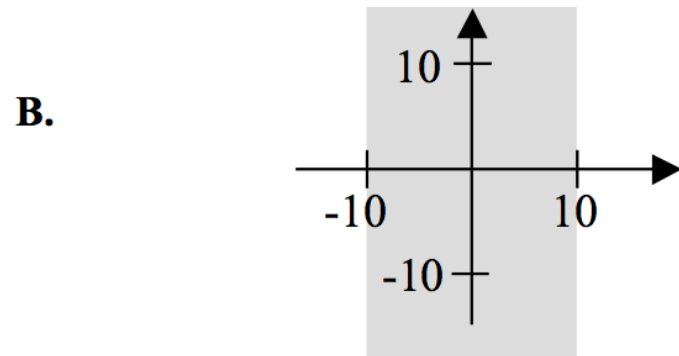
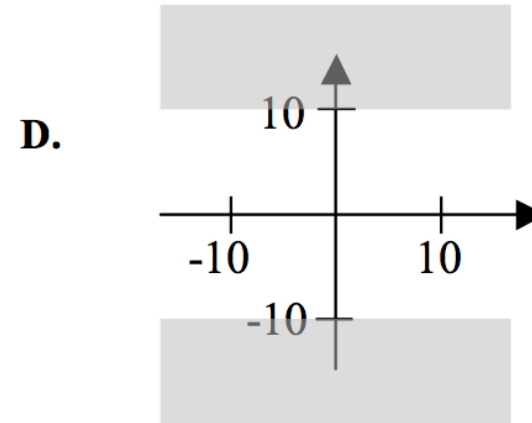
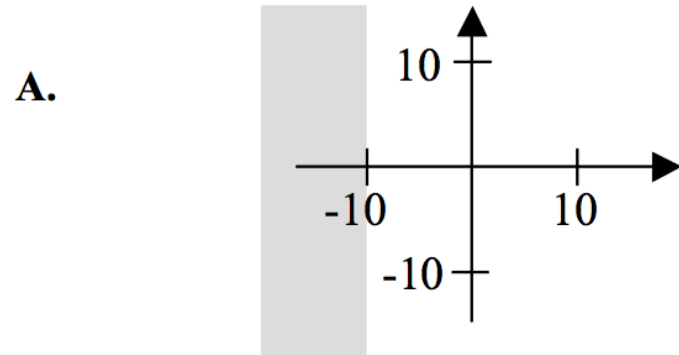

58. Which of the following number line graphs shows the solution set to the inequality $|x - 5| < -1$?



53. Which of the following shaded regions is the graph in the standard (x, y) coordinate plane of the points that satisfy the inequality $|y| \leq 10$?



14. What is the smallest positive integer x such that $|2 - x| \geq 6$?

F. 3

G. 5

H. 6

J. 7

K. 8

Solve for z where $|z + 1| < 3$

Possible Answers:

$$-4 < z < 2$$

$$z < 1 \text{ or } z > 3x$$

$$1 < z$$

$$1 < z < 3$$

$$-4 < z$$



Correct answer:

$$-4 < z < 2$$

Explanation:

Absolute value problems generally have two answers:

$z + 1 < 3$ or $z + 1 > -3$ and subtracting 1 from each side gives $z < 2$ or $z > -4$ which becomes $-4 < z < 2$

14. What is the smallest positive integer x such that

$$|2 - x| \geq 6?$$

- F. 3
- G. 5
- H. 6
- J. 7
- K. 8

When solving for x ,
you must split the
absolute value

$$2 - x \geq 6 \quad \text{and} \quad 2 - x \geq -6$$
$$-4 \geq x \quad \text{and} \quad 8 \geq x$$

Remember $8 = x$.

58. Which of the following number line graphs shows the solution set to the inequality $|x - 5| < -1$?

