

Answer Key

Challenge: Skills and Applications

1. $ac < bc$ 2. $x \geq -5$ 3. $x \leq 8$ 4. $x \geq 3$
5. $x \leq 2$ 6. Make sure students choose a and b so that $a > 0$ and $b = -a$. 7. Make sure students choose a and b so that $b = a - 1$.
8. Make sure students choose a and b so that $a < 0$ and $b = -3a$. 9. Make sure students choose a and b so that $b = a + 3$. 10. never
11. always 12. sometimes; *sample values*: true for $b = 2$, false for $b = \frac{1}{2}$. 13. always
14. sometimes; *sample values*: true for $a = \frac{1}{3}$ and $b = \frac{1}{2}$, false for $a = 2$ and $b = 3$.
15. never