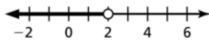


Pg. 71 answers

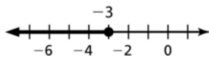
1. When solving $2x < -8$, the inequality symbol is not reversed when dividing each side by 2. When solving $-2x < 8$, the inequality is reversed when dividing each side by -2 .

2. Sample answer: $-5x \geq 25$

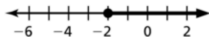
3. $x < 2$



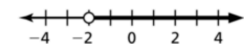
4. $y \leq -3$



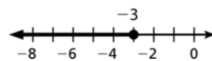
5. $n \geq -2$



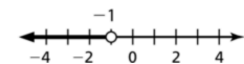
11. $t > -2$



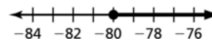
15. $n \leq -3$



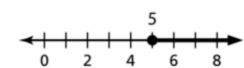
12. $y < -1$



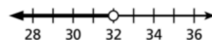
16. $w \geq -80$



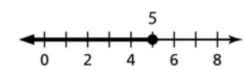
13. $z \geq 5$



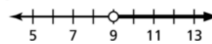
17. $m < 32$



14. $c \leq 5$

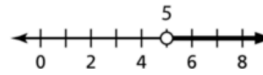


18. $y > 9$

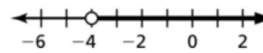


19. $5p \leq 12, p \leq 2.4$

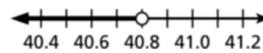
6. $t > 5$



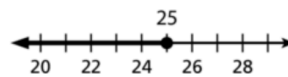
7. $x > -4$



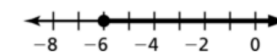
8. $a < 40.8$



9. $w \leq 25$



10. $t \geq -6$



20. $-8t \leq -36, t \geq 4.5$

21. $y > 12$

22. $v \geq 3$

23. $x \leq -9$

24. $n > -16$

25. $x > \frac{3}{8}$

26. $y < 4$

27. The inequality should not be reversed when multiplying each side by $\frac{3}{2}$; $\frac{3}{2} \cdot (-6) > \frac{3}{2} \cdot \frac{2}{3}x$; $-\frac{18}{2} > x$; $-9 > x$; $x < -9$; The solution is $x < -9$.

28. The inequality should be reversed when dividing by -4 ;
 $\frac{-4y}{-4} \geq \frac{-32}{-4}$; $y \geq 8$; The solution is $y \geq 8$.

29. $(14 \cdot 14)c \leq 700$; ft, ft, dollars

$$196c \leq 700; \text{ft}^2, \text{dollars}$$

$$c \leq 3.57; \text{dollars/ft}^2$$

30. a. C; Multiplying both sides by m gives $x < -m$.
b. A; Multiplying both sides by m gives $x > m$.
c. B; Multiplying both sides by m gives $x < m$.
d. D; Multiplying both sides by $-m$ and reversing the inequality symbol gives $x > -m$.

31. a. $d \leq 6.3(2)$, $d \leq 12.6$
 b. yes; The distance traveled in 4 hours would be no more than 25.2 miles, which is less than the distance required for a marathon.

32. Sample answer: $x < 21$

33. more than 300 million pennies

34. no; To get the second inequality, each side of the first is multiplied by -3 . To be equivalent, the inequality symbol also needs to be reversed.

35. a. $A > B$ or $B < A$
 b. $-A < -B$ or $-B > -A$
 c. As numbers move farther away from zero, their absolute value becomes larger. $A > B$ and $|A| > |B|$. $-A < -B$ and $|A| > |B|$.

42. $n = 1$

43. $z = 6$

44. 85%

45. $\frac{16}{30}$

46. 120%

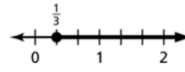
47. $\frac{2}{3}$

36. Because x may represent a positive or negative number, the inequality may need to be reversed when multiplying by x .

37. $\frac{C}{2\pi} > 5$, $C > 10\pi$

38. $\frac{d}{0.75} < 18$, $d < 13.5$

39. $36p \geq 12$, $p \geq \frac{1}{3}$



40. $x = 2$

41. $y = -4$