Summer practice

Solving linear inequalities

Solve each compound inequality.

1) $2n - \frac{15}{4} < -\frac{5}{4}n - \frac{7}{2}$ or $\frac{1}{4}n + \frac{8}{3} \leq 2n + \frac{8}{3}$

2) $-2 + \frac{5}{3}x \leq -3x - \frac{4}{3}$ and $x - \frac{3}{2} < \frac{8}{3}x + \frac{5}{4}$

3) $\frac{2}{3}v - \frac{10}{3} \geq \frac{7}{3}v + \frac{3}{2}$ and $-\frac{3}{2}v - \frac{13}{4} \leq -\frac{4}{3}v + \frac{3}{2}$

4) $1 - \frac{3}{2}v \geq -\frac{11}{4}v - \frac{2}{3}$ and $\frac{5}{2}v + \frac{9}{4} < \frac{3}{2}v + \frac{9}{4}$

5) $\frac{3}{2}b + \frac{4}{3} \leq \frac{1}{2}b + \frac{5}{3} < b + \frac{8}{3}$

6) $\frac{11}{4}x + \frac{3}{2} \leq -\frac{5}{2}x + \frac{5}{2} \leq 2 + \frac{5}{3}x$

7) $\frac{4}{3}p + \frac{1}{2} < -\frac{5}{4}p + \frac{7}{4} \leq \frac{1}{2}p - \frac{10}{3}$

8) $\frac{11}{4}a - \frac{5}{3} > -\frac{8}{3}a + \frac{5}{4}$ or $\frac{3}{2}a + \frac{1}{2} \geq \frac{5}{3}a + \frac{2}{3}$

9) $\frac{3}{4}x + \frac{3}{4} \leq -\frac{7}{2}x + \frac{3}{2}$ or $-\frac{2}{3}x + \frac{8}{3} < \frac{5}{3}x - \frac{7}{3}$

10) $1 - \frac{1}{2}b < -\frac{7}{2}b + \frac{3}{2} < \frac{5}{4}b + \frac{2}{3}$

11) $\frac{5}{2}x + \frac{7}{3} \geq -\frac{7}{2}x + \frac{8}{3}$ and $3 - \frac{1}{3}x > -1 + \frac{5}{4}x$

12) $2p - \frac{10}{3} < \frac{3}{4}p + \frac{8}{3} \leq p + \frac{11}{4}$

13) $-\frac{3}{2}b + \frac{3}{2} < \frac{7}{4}b - \frac{10}{3}$ or $\frac{7}{4}b - \frac{4}{3} < -\frac{7}{4}b + \frac{3}{2}$

14) $\frac{9}{4}a + \frac{5}{3} > \frac{5}{2}a + \frac{3}{2}$ and $-1 + \frac{3}{2}a \geq -\frac{7}{4}a - \frac{3}{2}$

15) $-\frac{3}{2}a + \frac{8}{3} \leq 1 + \frac{5}{3}a$ or $\frac{11}{4}a + \frac{1}{2} \leq -\frac{7}{3}a + \frac{4}{3}$

16) $x + \frac{7}{3} \leq 2 - \frac{3}{2}x < -\frac{11}{3}x + \frac{1}{2}$

17) $\frac{4}{3}x+\frac{3}{2}\geq\frac{1}{2}x-\frac{3}{2}$ or $-x-\frac{17}{4}\geq 2+\frac{1}{3}x$

18) $\frac{1}{2}k+\frac{3}{2}\leq-\frac{11}{4}k-\frac{5}{2}\leq\frac{1}{2}k+\frac{7}{4}$

19) $-1+\frac{3}{4}r\leq\frac{2}{3}r+\frac{8}{3}<\frac{8}{3}r+\frac{3}{2}$

20) $1-\frac{1}{2}x\leq\frac{1}{2}x+\frac{8}{3}$ and $-\frac{7}{2}x+\frac{5}{3}\geq\frac{1}{3}x+\frac{1}{4}$

21) $\frac{4}{3}x-\frac{1}{2}<\frac{1}{3}x+\frac{3}{2}<2+\frac{3}{2}x$

22) $\frac{1}{2}m+\frac{3}{4}>\frac{2}{3}m+\frac{3}{2}$ and $-3m+\frac{1}{4}\geq\frac{5}{3}m-\frac{7}{2}$

23) $-2+\frac{11}{4}m\leq\frac{1}{2}m-\frac{7}{2}$ or $-\frac{13}{4}m+\frac{5}{3}<\frac{13}{3}m+\frac{11}{4}$

24) $-2x+\frac{1}{3}<-\frac{7}{3}x-\frac{1}{2}$ or $-\frac{9}{4}x-\frac{3}{2}>-\frac{7}{2}x+\frac{8}{3}$

25) $-\frac{4}{3}n+\frac{1}{4}<\frac{3}{2}n+\frac{1}{3}<\frac{3}{2}n+\frac{7}{3}$

26) $3r-\frac{1}{3}>-\frac{7}{2}r+\frac{8}{3}$ and $\frac{7}{3}r-\frac{1}{2}\geq\frac{5}{2}r-\frac{4}{3}$

27) $\frac{11}{4}n-\frac{5}{3}\geq 2n-\frac{11}{4}$ or $1+\frac{3}{4}n<\frac{1}{4}n+\frac{1}{4}$

28) $-3-\frac{5}{3}r<-1+\frac{5}{3}r<1+\frac{1}{4}r$

29) $\frac{1}{3}k-\frac{4}{3}\leq\frac{4}{3}k+\frac{1}{2}$ or $-\frac{5}{3}k-\frac{7}{2}<-\frac{3}{2}k+\frac{5}{4}$

30) $3-\frac{9}{4}k>\frac{1}{2}k-\frac{5}{3}\geq-\frac{8}{3}k+\frac{5}{2}$

31) $\frac{2}{3}n+\frac{1}{2}>2n+\frac{3}{2}$ or $\frac{9}{4}n+\frac{1}{2}\geq\frac{3}{2}n+\frac{9}{4}$

32) $-\frac{1}{4}n-\frac{11}{3}>-\frac{11}{4}n+\frac{9}{4}$ or $\frac{9}{4}n+\frac{2}{3}<-\frac{5}{2}n+\frac{9}{4}$

33) $-1-\frac{7}{2}p \le 2-\frac{4}{3}p$ or $\frac{1}{3}p-\frac{15}{4} > -\frac{7}{4}p-\frac{1}{3}$

34) $-1-\frac{3}{4}v \le \frac{3}{4}v-\frac{3}{2}$ or $\frac{5}{2}v-\frac{8}{3} < -\frac{7}{2}v-\frac{3}{4}$

35) $-\frac{1}{2}k+\frac{11}{4} \le -\frac{3}{2}k+\frac{9}{4}$ or $-\frac{3}{2}k+\frac{1}{2} \le 3k+\frac{1}{2}$

36) $2x-\frac{3}{2} < x-\frac{2}{3}$ or $\frac{1}{3}x-\frac{5}{2} \ge 4x-\frac{5}{2}$

37) $-\frac{8}{3}x+\frac{11}{3} \ge \frac{11}{4}x-\frac{7}{2}$ and $-x-\frac{1}{3} < -\frac{1}{3}x+\frac{1}{4}$

38) $a-\frac{3}{2} \ge a+\frac{1}{3}$ and $-\frac{13}{4}a+\frac{7}{4} > -2a-\frac{3}{2}$

39) $2x-\frac{3}{2} \le x+\frac{1}{2}$ or $\frac{7}{4}x+\frac{1}{3} \le 2+\frac{1}{4}x$

40) $\frac{1}{3}a-\frac{3}{2} > \frac{8}{3}a+\frac{7}{4}$ or $1+\frac{9}{4}a \ge \frac{5}{3}a+\frac{1}{3}$

41) $\frac{3}{4}x+\frac{5}{2} \ge -\frac{15}{4}x-\frac{3}{2}$ or $-4+\frac{4}{3}x \ge \frac{3}{2}x+\frac{4}{3}$

42) $-\frac{3}{2}x-\frac{1}{3} > \frac{11}{4}x+\frac{1}{3}$ or $\frac{3}{2}x+\frac{5}{3} < \frac{7}{3}x-\frac{1}{3}$

43) $\frac{11}{4}x+\frac{1}{4} < \frac{2}{3}x+\frac{19}{4}$ and $-\frac{11}{3}x+\frac{4}{3} < \frac{5}{3}x+\frac{3}{2}$

44) $2x+\frac{1}{2} \ge -\frac{13}{4}x+\frac{3}{2}$ or $\frac{1}{2}x+\frac{3}{2} > \frac{5}{3}x-\frac{13}{4}$

45) $1+\frac{3}{4}p \le \frac{1}{3}p+\frac{5}{3}$ and $\frac{3}{2}p-\frac{3}{2} < \frac{9}{4}p+\frac{1}{3}$

46) $-\frac{10}{3}k+\frac{5}{2} \le \frac{1}{2}k+\frac{7}{4}$ or $-\frac{5}{2}k-\frac{7}{2} > \frac{5}{4}k+\frac{7}{4}$

47) $\frac{1}{2}n-\frac{7}{2} \ge -1+\frac{1}{4}n$ or $\frac{1}{4}n-\frac{5}{2} > -2+\frac{9}{4}n$

48) $1-\frac{7}{3}x < \frac{11}{4}x-\frac{5}{4}$ or $-4x-\frac{11}{3} > x+\frac{3}{2}$

49) $2m+\frac{7}{4} > -\frac{5}{2}m+\frac{3}{4}$ or $\frac{5}{3}m+\frac{5}{3} \le m+\frac{1}{2}$

50) $2-\frac{5}{3}v > \frac{1}{2}v-\frac{4}{3}$ and $-\frac{7}{2}v+\frac{11}{4} \le -2v+\frac{7}{3}$

51) $\frac{2}{3}n + \frac{1}{3} > -2n + \frac{2}{3}$ or $-n + \frac{5}{2} \leq -\frac{3}{2}n - \frac{7}{2}$

52) $1 + \frac{1}{3}n \geq -n - \frac{5}{4}$ or $-\frac{13}{4}n - \frac{1}{2} \geq -2n - \frac{4}{3}$

53) $1 + \frac{1}{4}k \leq 1 + \frac{5}{2}k \leq \frac{3}{2}k + \frac{11}{4}$

54) $1 - \frac{7}{4}n < -\frac{1}{2}n - \frac{3}{2}$ or $\frac{8}{3}n - \frac{11}{3} \leq -2n + \frac{5}{2}$

55) $-\frac{7}{3}b - \frac{3}{2} \leq \frac{7}{3}b + \frac{5}{2} \leq -\frac{11}{4}b + \frac{5}{3}$

56) $1 - \frac{9}{4}x > -1 + \frac{1}{2}x$ and $-\frac{13}{4}x + \frac{3}{2} < \frac{1}{4}x + \frac{3}{4}$

57) $-n - \frac{4}{3} < 3 + \frac{4}{3}n \leq -\frac{13}{3}n + \frac{1}{2}$

58) $\frac{3}{4}p - \frac{3}{2} \leq \frac{1}{2}p - \frac{1}{3}$ or $-2p - \frac{7}{4} < \frac{1}{2}p + \frac{11}{4}$

59) $\frac{3}{2}p + \frac{1}{4} \geq p + \frac{1}{4}$ or $\frac{7}{3}p - \frac{7}{4} \leq \frac{1}{2}p - \frac{10}{3}$

60) $1 + \frac{1}{2}x \geq \frac{3}{4}x - \frac{4}{3} > \frac{9}{4}x + \frac{1}{2}$

61) $-2n + \frac{1}{2} < \frac{5}{3}n + \frac{5}{3}$ and $-1 + \frac{8}{3}n > \frac{3}{2}n - \frac{5}{4}$

62) $-x - \frac{3}{4} \leq -2 + \frac{2}{3}x$ or $\frac{1}{4}x + \frac{1}{4} \leq -\frac{3}{2}x + \frac{3}{2}$

63) $\frac{4}{3}r - \frac{7}{4} > -2 + \frac{5}{2}r$ or $\frac{1}{3}r - \frac{1}{2} \leq \frac{3}{2}r - \frac{5}{3}$

64) $-2r + \frac{5}{4} \leq r + \frac{2}{3}$ and $\frac{7}{3}r - \frac{3}{2} \leq -\frac{9}{4}r + \frac{1}{2}$

65) $-\frac{8}{3}a + \frac{1}{4} \geq -\frac{1}{4}a + \frac{1}{4}$ and $\frac{1}{2}a - \frac{3}{4} > \frac{1}{4}a - \frac{11}{3}$

66) $-3 + \frac{5}{3}n > -\frac{11}{3}n + \frac{4}{3}$ and $2n - \frac{5}{2} < -\frac{3}{2}n + \frac{3}{2}$

67) $-\frac{2}{3}n + \frac{7}{2} \leq \frac{7}{3}n - \frac{10}{3}$ or $-\frac{9}{4}n + \frac{2}{3} > 2n + \frac{11}{4}$

68) $\frac{5}{2}m + \frac{5}{3} \geq -m - \frac{7}{4}$ or $1 - \frac{4}{3}m > -\frac{1}{2}m + \frac{11}{4}$

69) $-\frac{11}{4}b+\frac{3}{2}\le\frac{3}{2}b-\frac{1}{2}\le 2+\frac{1}{3}b$

70) $4n+\frac{3}{2}\le\frac{1}{2}n+\frac{1}{2}\le 2+\frac{1}{2}n$

71) $\frac{1}{2}r+\frac{1}{3}\ge-\frac{13}{4}r+\frac{4}{3}$ or $\frac{3}{4}r+\frac{2}{3}\le\frac{1}{3}r-\frac{7}{2}$

72) $4+\frac{5}{3}n\ge-\frac{5}{4}n-\frac{5}{2}$ or $2+\frac{11}{4}n\ge 2+\frac{1}{2}n$

73) $\frac{3}{2}n+\frac{3}{4}<\frac{4}{3}n+\frac{7}{3}\le\frac{3}{2}n+\frac{1}{3}$

74) $\frac{8}{3}p+\frac{4}{3}<\frac{1}{4}p-\frac{3}{2}\le\frac{11}{4}p+\frac{3}{2}$

75) $-\frac{1}{2}p-\frac{7}{4}>\frac{7}{4}p+\frac{1}{2}$ or $-\frac{8}{3}p-\frac{1}{2}\le\frac{2}{3}p+\frac{1}{2}$

76) $\frac{4}{3}b-\frac{13}{4}\le-\frac{15}{4}b-\frac{15}{4}$ or $-1+\frac{1}{2}b\le\frac{2}{3}b-\frac{5}{4}$

77) $-\frac{7}{4}r+\frac{2}{3}\le\frac{1}{4}r+\frac{11}{4}$ or $\frac{7}{3}r+\frac{3}{4}<\frac{11}{4}r-\frac{1}{2}$

78) $-\frac{4}{3}p+\frac{7}{4}\ge\frac{2}{3}p+\frac{5}{2}$ or $-\frac{1}{4}p+\frac{1}{2}\le 1+\frac{5}{2}p$

79) $\frac{1}{2}n+\frac{3}{2}\le\frac{2}{3}n+\frac{1}{3}$ or $n-\frac{5}{4}\le-\frac{4}{3}n+\frac{5}{4}$

80) $-x-\frac{7}{2}>\frac{3}{2}x+\frac{8}{3}$ or $-x-\frac{4}{3}<x-\frac{3}{2}$

81) $2+\frac{1}{2}v>-1+\frac{3}{2}v$ or $\frac{7}{3}v+\frac{1}{2}>\frac{5}{3}v+\frac{3}{4}$

82) $-2n-\frac{7}{4}\le-\frac{5}{2}n+\frac{3}{2}\le\frac{5}{4}n+\frac{3}{2}$

83) $\frac{1}{4}x-\frac{5}{3}\le-\frac{7}{2}x+\frac{7}{4}<x-\frac{7}{4}$

84) $-\frac{9}{4}x+\frac{11}{4}<-\frac{1}{2}x+\frac{2}{3}\le 2-\frac{3}{2}x$

85) $\frac{1}{2}v-\frac{3}{2}\ge-\frac{5}{2}v-\frac{5}{2}$ or $-\frac{3}{2}v-\frac{1}{2}>1+\frac{3}{4}v$

86) $-\frac{4}{3}n+\frac{1}{2}>\frac{8}{3}n+\frac{1}{2}$ or $\frac{8}{3}n+\frac{1}{3}\ge 2-\frac{11}{4}n$

87) $1 - \frac{3}{2}n \geq -1 - \frac{5}{3}n$ and $-2 + \frac{1}{2}n \leq -3 - \frac{1}{2}n$

88) $-\frac{7}{2}m + \frac{1}{4} > \frac{1}{3}m + \frac{3}{4}$ and $\frac{2}{3}m - \frac{1}{3} > 2m - \frac{10}{3}$

89) $-\frac{1}{2}m - \frac{5}{3} \geq -\frac{11}{3}m - \frac{8}{3}$ and $2m - \frac{1}{2} \leq 1 + \frac{5}{3}m$

90) $\frac{1}{2}m + \frac{3}{2} < 4m + \frac{5}{3}$ and $-2 + \frac{1}{2}m > -\frac{8}{3}m - \frac{2}{3}$

91) $\frac{3}{4}x + \frac{5}{3} > 2x + \frac{3}{2}$ or $\frac{7}{3}x + \frac{3}{2} \geq 4 - \frac{2}{3}x$

92) $1 + \frac{1}{3}n < -2n + \frac{3}{2}$ and $2n + \frac{5}{4} \leq \frac{11}{4}n + \frac{3}{2}$

93) $2n - \frac{9}{4} \leq \frac{8}{3}n - \frac{11}{3} < \frac{2}{3}n + \frac{4}{3}$

94) $\frac{3}{4}n + \frac{7}{4} < \frac{5}{3}n + \frac{1}{4}$ or $-n - \frac{11}{4} \leq -2 + \frac{1}{2}n$

95) $\frac{11}{4}x + \frac{7}{3} \leq \frac{1}{3}x - \frac{10}{3}$ or $-4 + \frac{9}{4}x \geq 1 - \frac{7}{4}x$

96) $-\frac{7}{3}r - \frac{4}{3} > 2r - \frac{3}{2}$ or $-\frac{11}{4}r - \frac{5}{3} < -r + \frac{2}{3}$

97) $-\frac{5}{3}a - \frac{3}{2} > 2 - \frac{3}{2}a$ or $\frac{4}{3}a + \frac{2}{3} \geq -a - \frac{5}{2}$

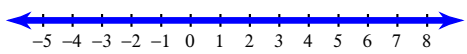
98) $\frac{4}{3}x - \frac{7}{3} > 1 - \frac{1}{2}x$ or $-\frac{2}{3}x + \frac{1}{2} > -2x + \frac{8}{3}$

99) $\frac{2}{3}b + \frac{5}{3} < \frac{1}{3}b + \frac{3}{4}$ or $\frac{4}{3}b - \frac{1}{3} > \frac{1}{2}b - \frac{7}{3}$

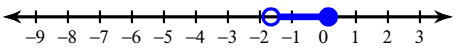
100) $\frac{1}{4}k - \frac{10}{3} > \frac{5}{2}k + \frac{1}{2}$ or $-\frac{9}{2}k + \frac{5}{2} < 2 + \frac{4}{3}k$

Answers to Solving linear inequalities

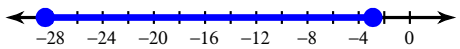
1) { All real numbers. } :



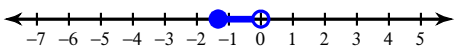
2) $-\frac{33}{20} < x \le \frac{1}{7}$:



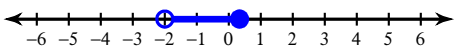
3) $-\frac{57}{2} \le v \le -\frac{29}{10}$:



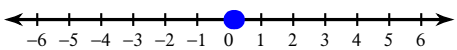
4) $-\frac{4}{3} \le v < 0$:



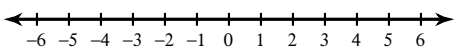
5) $-2 < b \le \frac{1}{3}$:



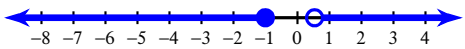
6) $\frac{3}{25} \le x \le \frac{4}{21}$:



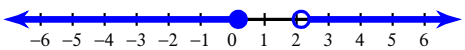
7) No solution. :



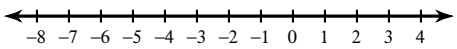
8) $a > \frac{7}{13}$ or $a \le -1$:



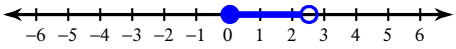
9) $x \le \frac{3}{17}$ or $x > \frac{15}{7}$:



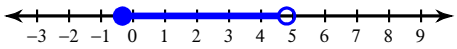
10) No solution. :



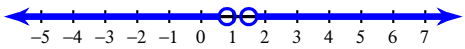
11) $\frac{1}{18} \le x < \frac{48}{19}$:



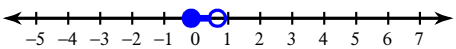
12) $-\frac{1}{3} \le p < \frac{24}{5}$:



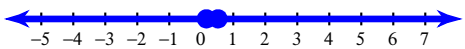
13) $b > \frac{58}{39}$ or $b < \frac{17}{21}$:



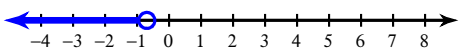
14) $-\frac{2}{13} \le a < \frac{2}{3}$:



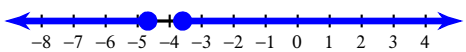
15) $a \ge \frac{10}{19}$ or $a \le \frac{10}{61}$:



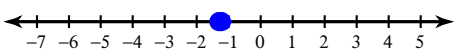
16) $x < -\frac{9}{13}$:



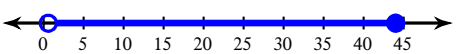
17) $x \ge -\frac{18}{5}$ or $x \le -\frac{75}{16}$:



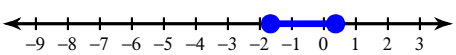
18) $-\frac{17}{13} \le k \le -\frac{16}{13}$:



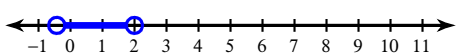
19) $\frac{7}{12} < r \le 44$:



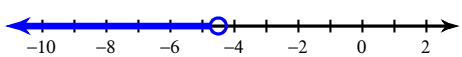
20) $-\frac{5}{3} \le x \le \frac{17}{46}$:



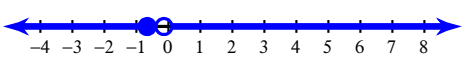
21) $-\frac{3}{7} < x < 2$:

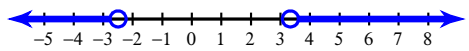


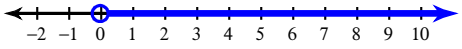
22) $m < -\frac{9}{2}$:

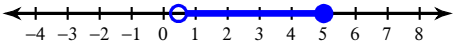


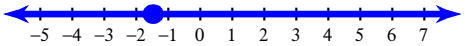
23) $m \le -\frac{2}{3}$ or $m > -\frac{1}{7}$:

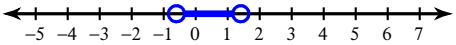


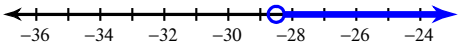
24) $x < -\frac{5}{2}$ or $x > \frac{10}{3}$: 

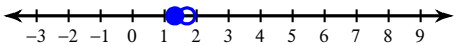
25) $n > -\frac{1}{34}$: 

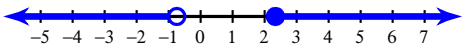
26) $\frac{6}{13} < r \leq 5$: 

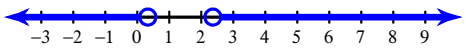
27) $n \geq -\frac{13}{9}$ or $n < -\frac{3}{2}$: 

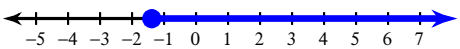
28) $-\frac{3}{5} < r < \frac{24}{17}$: 

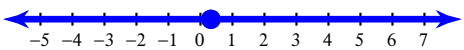
29) $k > -\frac{57}{2}$: 

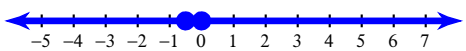
30) $\frac{25}{19} \leq k < \frac{56}{33}$: 

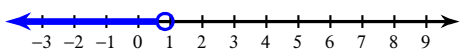
31) $n < -\frac{3}{4}$ or $n \geq \frac{7}{3}$: 

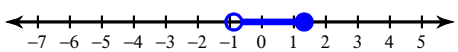
32) $n > \frac{71}{30}$ or $n < \frac{1}{3}$: 

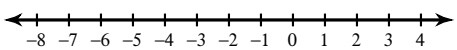
33) $p \geq -\frac{18}{13}$: 

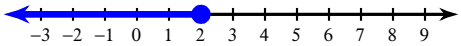
34) $v \geq \frac{1}{3}$ or $v < \frac{23}{72}$: 

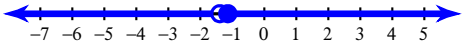
35) $k \leq -\frac{1}{2}$ or $k \geq 0$: 

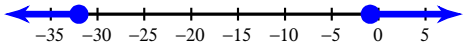
36) $x < \frac{5}{6}$: 

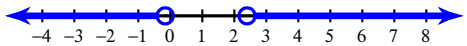
37) $-\frac{7}{8} < x \leq \frac{86}{65}$: 

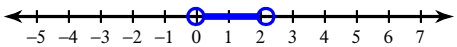
38) No solution. : 

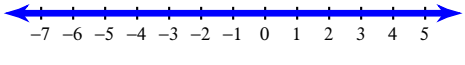
39) $x \leq 2$: 

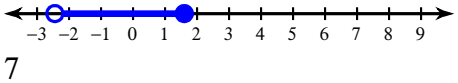
40) $a < -\frac{39}{28}$ or $a \geq -\frac{8}{7}$: 

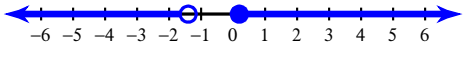
41) $x \geq -\frac{8}{9}$ or $x \leq -32$: 

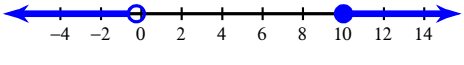
42) $x < -\frac{8}{51}$ or $x > \frac{12}{5}$: 

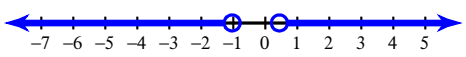
43) $-\frac{1}{32} < x < \frac{54}{25}$: 

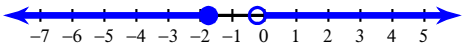
44) { All real numbers. } : 

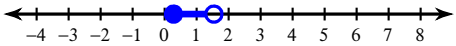
45) $-\frac{22}{9} < p \leq \frac{8}{5}$: 

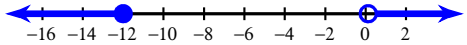
46) $k \geq \frac{9}{46}$ or $k < -\frac{7}{5}$: 

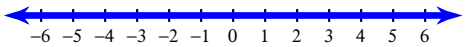
47) $n \geq 10$ or $n < -\frac{1}{4}$: 

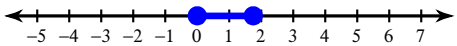
48) $x > \frac{27}{61}$ or $x < -\frac{31}{30}$: 

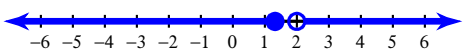
49) $m > -\frac{2}{9}$ or $m \le -\frac{7}{4}$: 

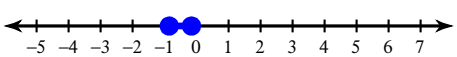
50) $\frac{5}{18} \le v < \frac{20}{13}$: 

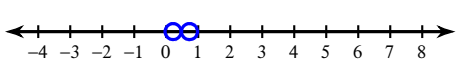
51) $n > \frac{1}{8}$ or $n \le -12$: 

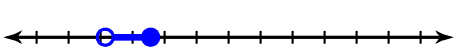
52) { All real numbers. } : 

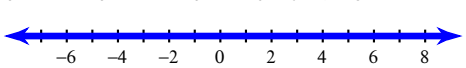
53) $0 \le k \le \frac{7}{4}$: 

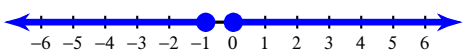
54) $n > 2$ or $n \le \frac{37}{28}$: 

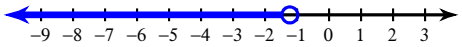
55) $-\frac{6}{7} \le b \le -\frac{10}{61}$: 

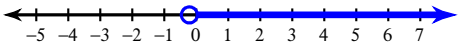
56) $\frac{3}{14} < x < \frac{8}{11}$: 

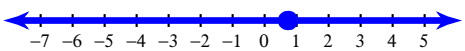
57) $-\frac{13}{7} < n \le -\frac{15}{34}$: 

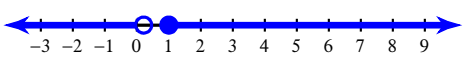
58) { All real numbers. } : 

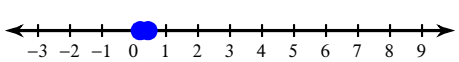
59) $p \ge 0$ or $p \le -\frac{19}{22}$: 

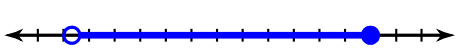
60) $x < -\frac{11}{9}$: 

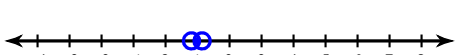
61) $n > -\frac{3}{14}$: 

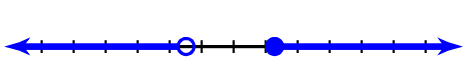
62) $x \ge \frac{3}{4}$ or $x \le \frac{5}{7}$: 

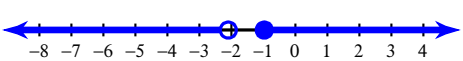
63) $r < \frac{3}{14}$ or $r \ge 1$: 

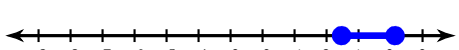
64) $\frac{7}{36} \le r \le \frac{24}{55}$: 

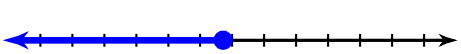
65) $-\frac{35}{3} < a \le 0$: 

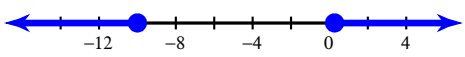
66) $\frac{13}{16} < n < \frac{8}{7}$: 

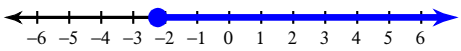
67) $n \ge \frac{41}{18}$ or $n < -\frac{25}{51}$: 

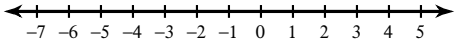
68) $m \ge -\frac{41}{42}$ or $m < -\frac{21}{10}$: 

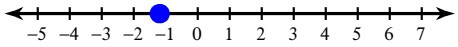
69) $\frac{8}{17} \le b \le \frac{15}{7}$: 

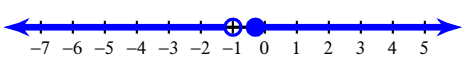
70) $n \le -\frac{2}{7}$: 

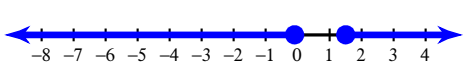
71) $r \geq \frac{4}{15}$ or $r \leq -10$: 

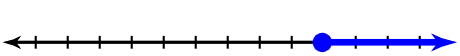
72) $n \geq -\frac{78}{35}$: 

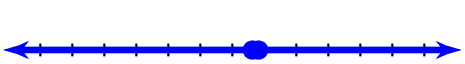
73) No solution. : 

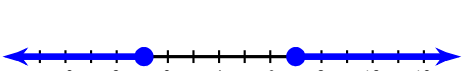
74) $-\frac{6}{5} \leq p < -\frac{34}{29}$: 

75) $p < -1$ or $p \geq -\frac{3}{10}$: 

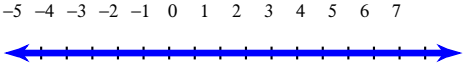
76) $b \leq -\frac{6}{61}$ or $b \geq \frac{3}{2}$: 

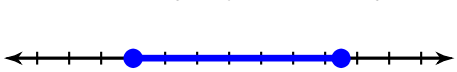
77) $r \geq -\frac{25}{24}$: 

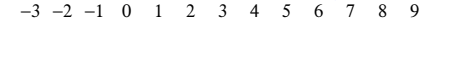
78) $p \leq -\frac{3}{8}$ or $p \geq -\frac{2}{11}$: 

79) $n \geq 7$ or $n \leq \frac{15}{14}$: 

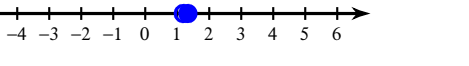
80) $x < -\frac{37}{15}$ or $x > \frac{1}{12}$:

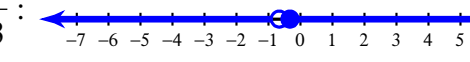
81) { All real numbers. } : 

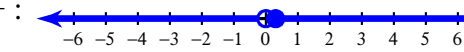
82) $0 \leq n \leq \frac{13}{2}$: 

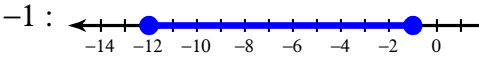
83) $\frac{7}{9} < x \leq \frac{41}{45}$: 

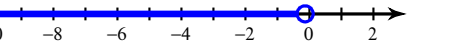
84) $\frac{25}{21} < x \leq \frac{4}{3}$:

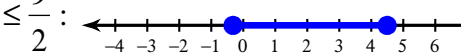
85) $v \geq -\frac{1}{3}$ or $v < -\frac{2}{3}$: 

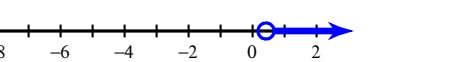
86) $n < 0$ or $n \geq \frac{4}{13}$: 

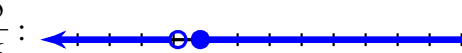
87) $-12 \leq n \leq -1$: 

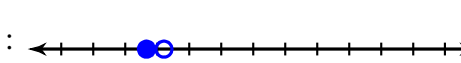
88) $m < -\frac{3}{23}$: 

89) $-\frac{6}{19} \leq m \leq \frac{9}{2}$: 

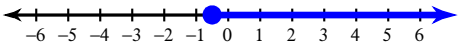
90) $m > \frac{8}{19}$: 

91) $x < \frac{2}{15}$ or $x \geq \frac{5}{6}$: 

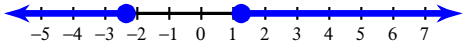
92) $-\frac{1}{3} \leq n < \frac{3}{14}$: 

93) $\frac{17}{8} \leq n < \frac{5}{2}$: 

94) $n \geq -\frac{1}{2}$:

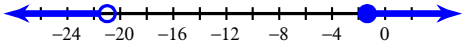


95) $x \leq -\frac{68}{29}$ or $x \geq \frac{5}{4}$:

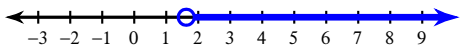


96) { All real numbers. } :

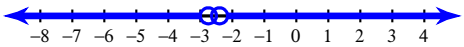
97) $a < -21$ or $a \geq -\frac{19}{14}$:



98) $x > \frac{13}{8}$:



99) $b < -\frac{11}{4}$ or $b > -\frac{12}{5}$:



100) $k < -\frac{46}{27}$ or $k > \frac{3}{35}$: