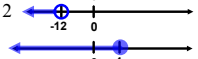
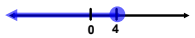
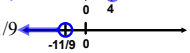
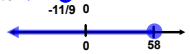
2) variable cancels, true = $\mathbb{R}$ , false =$\varnothing$

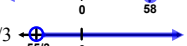
4) $y \le -1$ 


6) $w < -12$ 

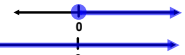

8) $s \le 4$ 

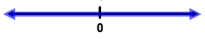

10) $n < -11/9$ 

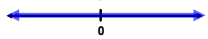

12) $q \le 58$ 

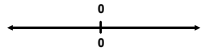

14) $f > -55/3$ 


16) should be +12 in step 2

18) $d \ge 0$ 


20) $\mathbb{R}$ 


22) $\mathbb{R}$ 


24) $\varnothing$ 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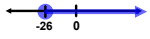
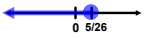
26) $\mathbb{R}$

28) $\varnothing$

30) 


32) 


33) C

34) $x > 7$

35) $x \le 10$

37) at most 11 songs

38) at least 6 ornaments

39) a: up to 6 swans
b: 14 swans

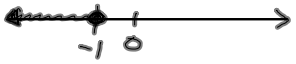
40) C

4) $5y + 9 \le 4$

$5y + 9 - 9 \le 4 - 9$

$\frac{5y}{5} \le \frac{-5}{5}$

$y \le -1$




12) $(4 - \frac{1}{2}q \le 33 - q)2$

$8 - q \le 66 - 2q$

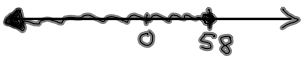
$8 - q + q \le 66 - 2q + q$

$8 \le 66 - q$

$8 - 66 \le 66 - 66 - q$

$-58 \le -q$

$58 \ge q$




14) $(8 - \frac{4}{5}f > -14 - 2f)5$

$40 - 4f > -70 - 10f$

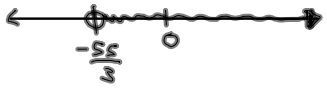
$40 - 4f + 10f > -70 - 10f + 10f$

$40 + 6f > -70$

$40 - 40 + 6f > -70 - 40$

$\frac{6f}{6} > \frac{-110}{6}$

$f > \frac{-55}{3}$




20) $2(t - 3) > 2t - 8$

$2t - 6 > 2t - 8$

$2t - 2t - 6 > 2t - 2t - 8$

$-6 > -8$

$\mathbb{R}$

32) $6(6x - 3) \le -2(4 + 8x)$

$36x - 18 \le -8 - 16x$

$36x + 16x - 18 + 18 \le -8 + 18 - 16x + 16x$

$\frac{52x}{52} \le \frac{10}{52}$

$x \le \frac{5}{26}$

35) $A = \frac{1}{2}bh$

$\frac{1}{2} \cdot 8(x+1) \leq 44$

$\frac{4(x+1)}{4} \leq \frac{44}{4}$

$x + 1 \leq 11$

$x + 1 - 1 \leq 11 - 1$

$x \leq 10$ cm

37) $4x + 25 \leq 70$

$4x + 25 - 25 \leq 70 - 25$

$\frac{4x}{4} \leq \frac{45}{4}$

$x \leq 11.25$

11 or less

39) 1st two swans 2+ additional 4 = 6 swans

$500 + 125x \leq 20(50)$

$500 - 500 + 125x \leq 1000 - 500$

$\frac{125x}{125} \leq \frac{500}{125}$

$x \leq 4$

at most 6 swans

b: $500 + 125x \leq 40(70)$

$500 - 500 + 125x \leq 2800 - 500$

$\frac{125x}{125} \leq \frac{2300}{125}$

$x \leq 18.4$

at most 20 swans.

14 swans

38) Let x = ornaments sold

$\frac{8.50x}{8.5} > \frac{46}{8.5}$

$x > 5.41$

6 or more

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1-33 odd