

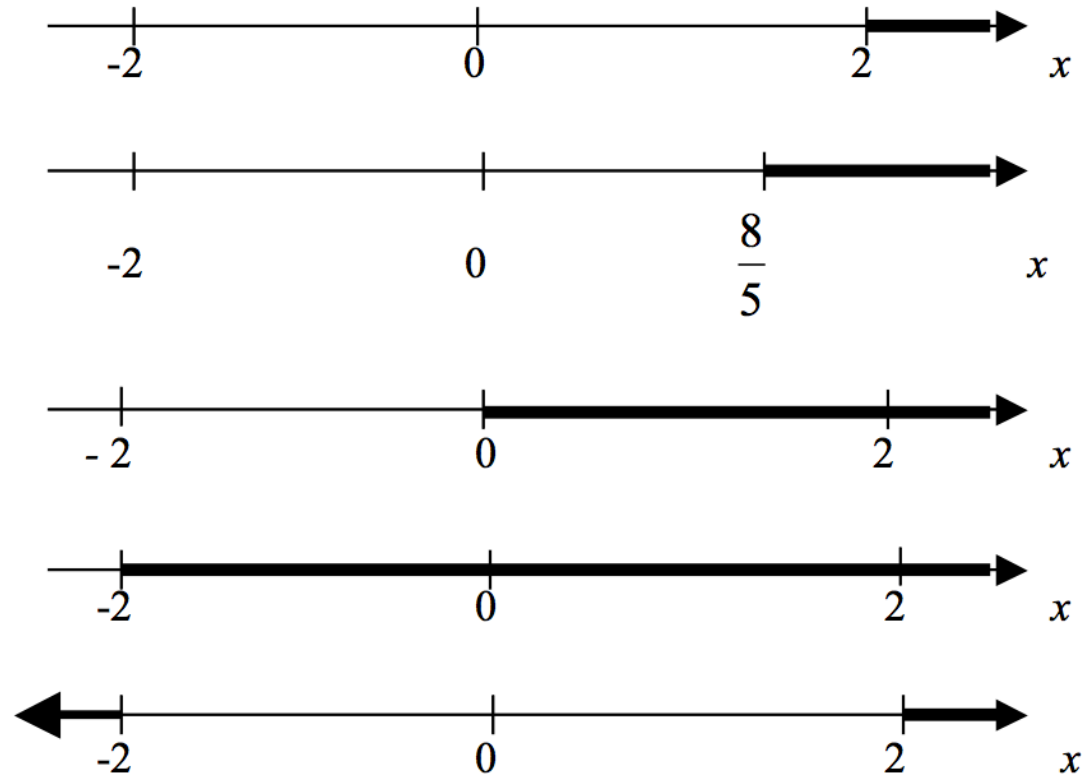
52. Which of the following is the solution statement for the inequality shown below?

$$-5 < 1 - 3x < 10$$

- F.** $-5 < x < 10$
- G.** $-3 < x$
- H.** $-3 < x < 2$
- J.** $-2 < x < 3$
- K.** $x < -3$ or $x > 2$

21. Which of the following shows the solution set for the inequality $5x - 1 \geq 9$?

A.



47. Which of the following defines the solution set for the system of inequalities below?

$$\begin{aligned}x &\leq 6 \\4 + 2x &\geq 0\end{aligned}$$

- A. $x \geq -2$
- B. $x \leq 6$
- C. $-8 \leq x \leq 6$
- D. $-2 \leq x \leq 6$
- E. $2 \leq x \leq 6$

29. The inequality $6(x + 2) > 7(x - 5)$ is equivalent to which of the following inequalities?

A. $x < -23$

B. $x < 7$

C. $x < 17$

D. $x < 37$

E. $x < 47$

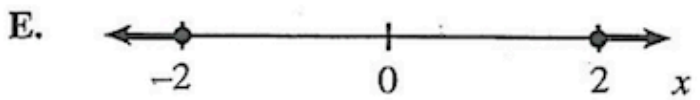
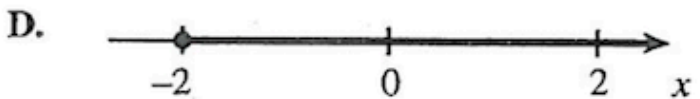
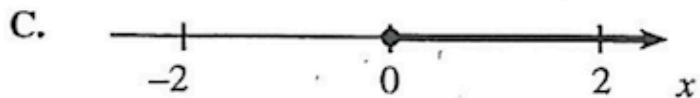
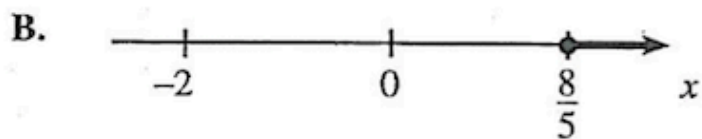
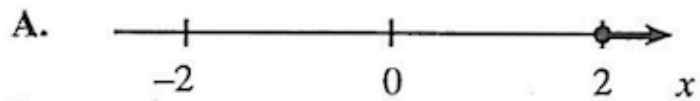
L. 15.7

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Inequalities

Solve the inequality 1st

$$5x - 1 \geq 9$$

$$5x \geq 10$$

$$x \geq 2$$

where are
x's greater
than 2

A

E. 15:4

- 52.** Which of the following is the solution statement for the inequality shown below?

$$-5 < 1 - 3x < 10$$

F. $-5 < x < 10$

G. $-3 < x$

H. $-3 < x < 2$

J. $-2 < x < 3$

K. $x < -3$ or $x > 2$

can also equal to one another

47. Which of the following defines the solution set for the system of inequalities below?

$$\begin{array}{l} x \leq 6 \\ 4 + 2x \geq 0 \end{array}$$

- A. $x \geq -2$
B. $x \leq 6$
C. $-8 \leq x \leq 6$
→ D. $-2 \leq x \leq 6$
E. $2 \leq x \leq 6$

Combo inequalities

↳ equals $2x \geq -4$
 $x \geq -2$

SAME thing

Combining $x \leq 6$ and $x \geq -2$ is

$$-2 \leq x \leq 6$$

48. At Brookfield High School, 55 seniors are enrolled in the sociology class and 40 seniors are enrolled in the

31. For a single production run, when n items are made and sold, a company's profit, P dollars, can be modeled by $P = n^2 - 300n - 100,000$. What is the smallest number of items that must be made and sold in order for the company not to lose money on the production run?

- A. 150
- B. 200
- C. 300
- D. 350
- E. 500

ACT-63E-SAMPLE

Company Needs to make at least \$100,000 in order to cover its fixed and/or START UP COSTS

Set up inequality so that revenue from sales is greater than \$100,000

$$n^2 - 300n \geq \$100,000$$

$$n(n - 300) \geq 100,000$$

CHOICES A B And C obviously won't work Dis less than 100,000

E is the only one

24. An artist makes a profit of $(500p - p^2)$ dollars from selling p paintings. What is the fewest number of paintings the artist can sell to make a profit of at least \$60,000 ?
- F. 100
 - G. 150
 - H. 200
 - J. 300
 - K. 600