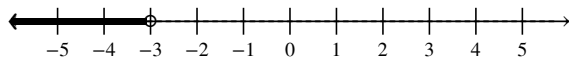# Write Inequalities on Number Lines

Name: _____   **Date:** _____

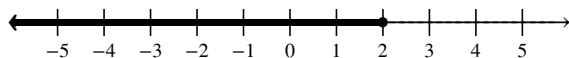1. Which inequality is shown on the number line?

   A. $x \geq -3$ B. $x \leq -3$
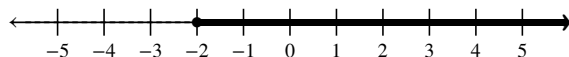
   C. $x > -3$ D. $x < -3$
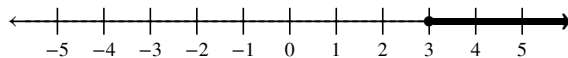
2. Which inequality is shown on the number line?

   A. $x > 2$ B. $x < 2$ C. $x \geq 2$ D. $x \leq 2$

3. Which inequality is displayed on the number line?
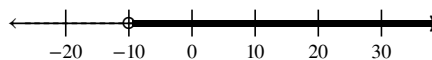

   A. $x > -2$ B. $x < -2$

   C. $x \geq -2$ D. $x \leq -2$

4. Which inequality is displayed on the number line?

   A. $x \geq 3$ B. $x \leq 3$ C. $x > 3$ D. $x < 3$

5. Which inequality describes the graph?
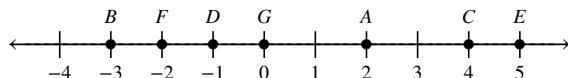

   A. $x \geq -10$ B. $x > -10$

   C. $x < -10$ D. $x \leq -10$

6. Which inequality describes the graph?
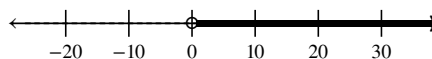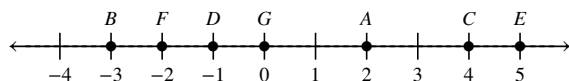

   A. $x \leq 0$ B. $x < 0$ C. $x > 0$ D. $x \geq 0$

7. This number line satisfies which of the following conditions?

   A. $A > 0$ B. $A < 0$ C. $A = 0$ D. $C = 0$

8. This number line satisfies which of the following conditions?

A. $G < 0$ B. $G = 0$ C. $C < 0$ D. $A = 0$

9. This number line satisfies which of the following conditions?
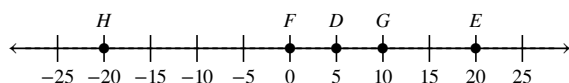
A. $E = 0$ B. $E = 20$

C. $E < 20$ D. $E > 20$

10. This number line satisfies which of the following conditions?
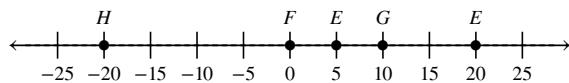
A. $H < -30$ B. $H > -30$

C. $E < -30$ D. $E > 40$

11. Which of the following conditions does the number line satisfy?
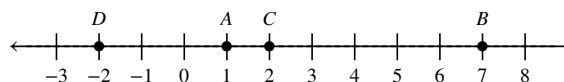
A. $A > B$ B. $C < A$

C. $D = C$ D. $A < B$

12. Which of the following conditions does the number line satisfy?
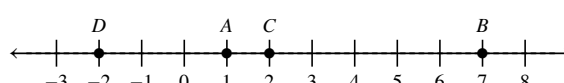
A. $D < B$ B. $D > C$

C. $A = B$ D. $D = C$

13. Which graph represents all real numbers less than 4?
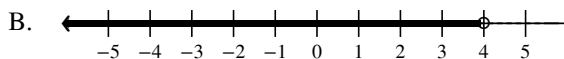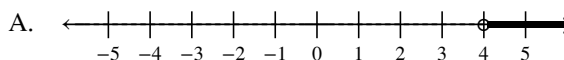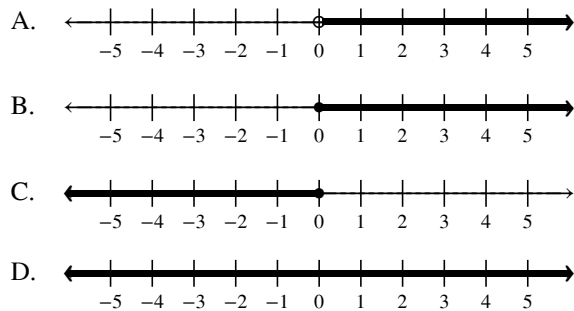
A.

B.

C.

D.

Write Inequalities on Number Lines

14. Which graph represents all real numbers greater than 0?

A. open circle at 0, shaded right

-5 -4 -3 -2 -1 0 1 2 3 4 5

B. closed circle at 0, shaded right

-5 -4 -3 -2 -1 0 1 2 3 4 5

C. closed circle at 0, shaded left

-5 -4 -3 -2 -1 0 1 2 3 4 5

D. shaded entire line

-5 -4 -3 -2 -1 0 1 2 3 4 5

16. Which graph represents all real numbers less than or equal to 1?

A. closed circle at 1, shaded right

-5 -4 -3 -2 -1 0 1 2 3 4 5

B. open circle at 1, shaded left

-5 -4 -3 -2 -1 0 1 2 3 4 5

C. closed circle at 1, shaded left

-5 -4 -3 -2 -1 0 1 2 3 4 5

D. shaded entire line

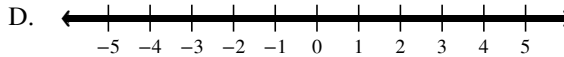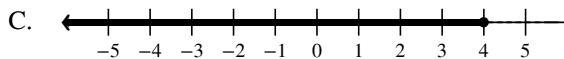-5 -4 -3 -2 -1 0 1 2 3 4 5

15. Which graph represents all real numbers greater than or equal to −3?

A. open circle at −3, shaded right

-5 -4 -3 -2 -1 0 1 2 3 4 5

B. closed circle at −3, shaded right

-5 -4 -3 -2 -1 0 1 2 3 4 5

C. open circle at −3, shaded left

-5 -4 -3 -2 -1 0 1 2 3 4 5

D. shaded entire line

-5 -4 -3 -2 -1 0 1 2 3 4 5
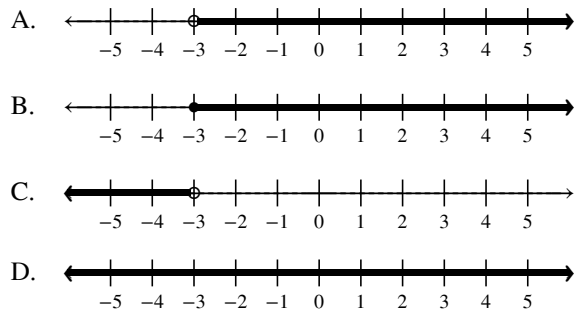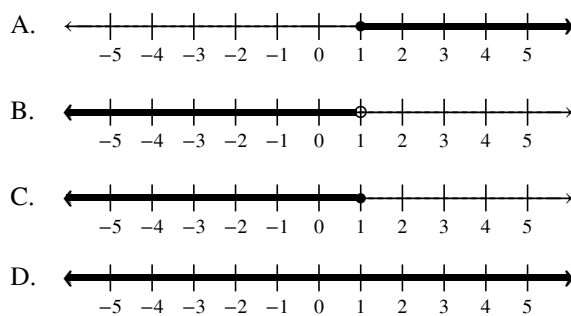
17. Which number line shows the graph of all numbers that are greater than 2 and less than 5?

A. open circle at 1 and open circle at 8, shaded between

1 2 3 4 5 6 7 8

B. open circle at 3 and open circle at 5, shaded between

1 2 3 4 5 6 7 8

C. open circle at 2 and open circle at 8, shaded between

1 2 3 4 5 6 7 8

D. open circle at 2 and open circle at 5, shaded between

1 2 3 4 5 6 7 8

Write Inequalities on Number Lines
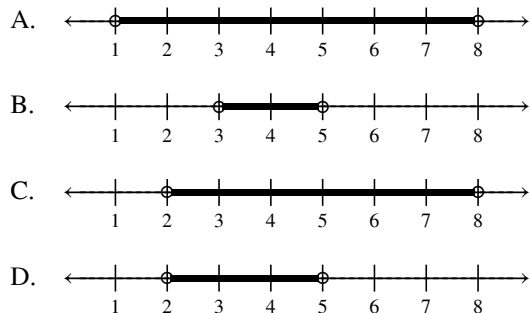
18. Which number line shows the graph of all numbers that are greater than 17 and less than 21?

A.
```
  ←—+—+—+—+—+—○━━━━━○—+—+—→
    12 13 14 15 16 17 18 19 20 21 22 23
```

B.
```
  ←—○━━━━━━━━━━━━━━━━━━○—→
    12 13 14 15 16 17 18 19 20 21 22 23
```

C.
```
  ←—+—+—+—+—+—+—○━━━○—+—+—→
    12 13 14 15 16 17 18 19 20 21 22 23
```

D.
```
  ←—○━━━━━○—+—+—+—+—+—+—→
    12 13 14 15 16 17 18 19 20 21 22 23
```
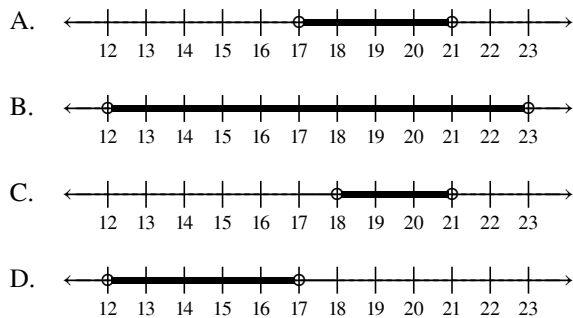
19. Which statement describes the interval indicated on the number line?

```
  ←—+—+—+—+—+—●━━━━━━━━→
    0  1  2  3  4  5  6  7  8  9  10
```
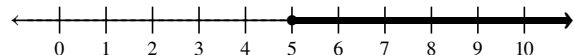
A. The set of all real numbers less than 5

B. The set of all real numbers greater than 5

C. The set of all real numbers greater than or equal to 5

D. The set of integers greater than 5

20. Which statement describes the interval indicated on the number line?

```
  ◄━━━━━━━━━━━━━━○—+—+—+—→
    −5  −4  −3  −2  −1  0  1  2  3  4  5
```
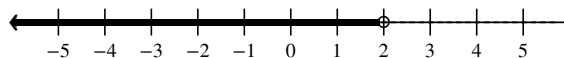
A. The set of all real numbers less than 2

B. The set of all real numbers greater than or equal to 2

C. The set of all real numbers less than or equal to 2

D. The set of integers greater than 2

21. A certain river in central Texas is determined to be at flood level if the water is higher than 12 feet. Which graph indicates when the river is at flood stage?

A.
```
  ←—+—+—+—○━━━━━━━►
    6   8   10  12  14  16
```

B.
```
  ←—+—+—●━━━●—+—+—→
    6   8   10  12  14  16
```

C.
```
  ◄━━━━━●—+—+—+—+—→
    6   8   10  12  14  16
```

D.
```
  ◄━━━━━●—+—●━━━━►
    6   8   10  12  14  16
```

Write Inequalities on Number Lines
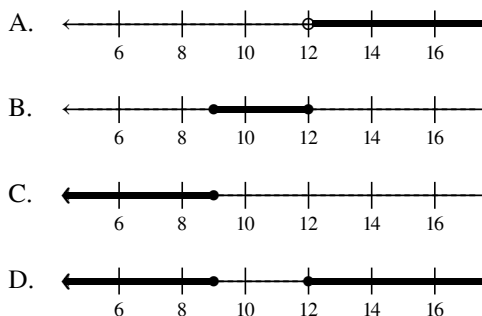
22. A tributary of the Ohio River was determined to be at crest stage when the river reached 9 feet. Which graph indicates the depth of the river when it is *not* at flood stage?

A.
```
←——+———+———+———+●━━━━━━━━→
    5   7   9   11  13  15
```

B.
```
◄━━━━━━━━━━━━━●———+———+———→
    5   7   9   11  13  15
```

C.
```
◄━━━━━━━━○———+———+———+———→
    5   7   9   11  13  15
```

D.
```
◄━━━━━━━○━━━○━━━━━━━━→
    5   7   9   11  13  15
```
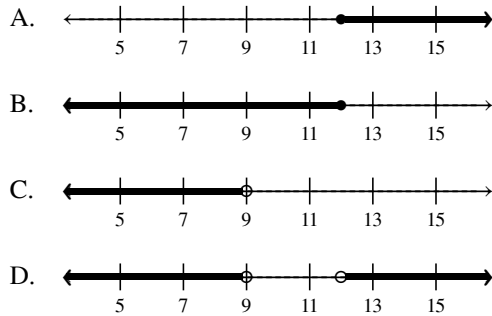
23. Ta'Wanda was looking for kids to play with in her neighborhood. She found out there are kids younger than 4 and older than 7, but no kids in between those two ages.

Which number line *best* shows the ages of the neighborhood children?

A.
```
←——+——+——+——+●━━━━━━━━━━━━━━→
   0  1  2  3  4  5  6  7  8  9  10
```
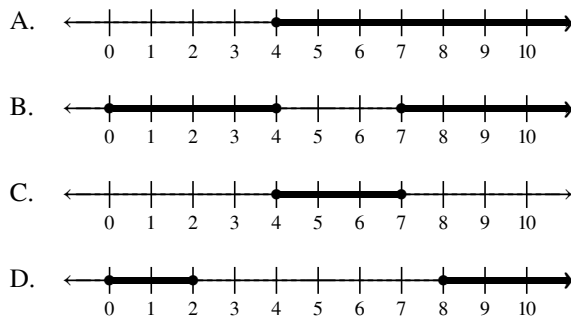
B.
```
←●━━━━━━━●——+——+●━━━━━━━→
  0  1  2  3  4  5  6  7  8  9  10
```

C.
```
←——+——+——+——●━━━━━●——+——+——→
   0  1  2  3  4  5  6  7  8  9  10
```

D.
```
←●━━━━━●——+——+——+——+●━━━━→
  0  1  2  3  4  5  6  7  8  9  10
```

24. The price x of apples varies from 20¢ a pound to 32¢ a pound. Which inequality expresses this fact?

A. $20 \leq x \leq 32$ B. $20 < x < 32$

C. $20 \neq x \neq 32$ D. $32 \leq x \leq 20$

25. The price x of peaches varies from 23¢ a pound to 35¢ a pound. Which inequality expresses this fact?

A. $23 \leq x \geq 35$ B. $23 \geq x \geq 35$

C. $35 \geq x \geq 23$ D. $23 \neq x \neq 35$

26. On an interstate highway, the maximum speed limit is 65 miles per hour, and the minimum speed is 40 miles per hour. If x represents speed, which sentence best expresses this condition?

A. $65 \leq x \leq 40$ B. $40 \leq x \geq 65$

C. $65 \geq x \geq 40$ D. $40 - x \leq 65$

27. At low tide, the depth of water in a lagoon is 12 feet. At high tide, the depth of the water is 15 feet. If d represents the water depth in the lagoon, which sentence best expresses this condition?

A. $15 \leq d \leq 12$ B. $12 \leq d \geq 15$

C. $12 \geq d \geq 15$ D. $15 \geq d \geq 12$

Write Inequalities on Number Lines

Write Inequalities on Number Lines   3/16/2018

1.
Answer: D
Objective: 6.EE.8

2.
Answer: D
Objective: 6.EE.8

3.
Answer: C
Objective: 6.EE.8

4.
Answer: A
Objective: 6.EE.8

5.
Answer: B
Objective: 6.EE.8

6.
Answer: C
Objective: 6.EE.8

7.
Answer: A
Objective: 6.EE.8

8.
Answer: B
Objective: 6.EE.8

9.
Answer: B
Objective: 6.EE.8

10.
Answer: B
Objective: 6.EE.8

11.
Answer: D
Objective: 6.EE.8

12.
Answer: A
Objective: 6.EE.8

13.
Answer: B
Objective: 6.EE.8

14.
Answer: A
Objective: 6.EE.8

15.
Answer: B
Objective: 6.EE.8

16.
Answer: C
Objective: 6.EE.8

17.
Answer: D
Objective: 6.EE.8

18.
Answer: A
Objective: 6.EE.8

19.
Answer: C
Objective: 6.EE.8

20.
Answer: A
Objective: 6.EE.8

21.
Answer: A
Objective: 6.EE.8

22.
Answer: C
Objective: 6.EE.8

23.
Answer: B
Objective: 6.EE.8

24.
Answer: A
Objective: 6.EE.8

25.
Answer: C
Objective: 6.EE.8

26.
Answer: C
Objective: 6.EE.8

27.
Answer: D
Objective: 6.EE.8