

Answers

4.3 Enrichment and Extension

1. 68.2 mm
2. $e \leq 0.002$ mm
3. a. $s = 68.198$ mm, $V \approx 534,861.228$ mm³
 b. $s = 68.202$ mm, $V \approx 534,923.972$ mm³
 c. $68.198 \leq s \leq 68.202$
 d. $534,861.228 \leq V \leq 534,923.972$
4. a. $V \approx 534,901.902$ mm³
 b. An error in the measurement of the side length will have a greater impact on the error in the volume. Because the base is a square, the error factors in the volume calculation twice.

4.3 Puzzle Time

RUN AFTER IT

4.4 Start Thinking!

For use before Activity 4.4

Sample answer: You receive a gift card for \$30 to spend at an online store. The cost of shipping for your order is \$5. How much can you spend without exceeding the amount on your gift card?

4.4 Warm Up

For use before Activity 4.4

1. $x < 3$
2. $x \geq 4$
3. $x > -3$
4. $x < -\frac{5}{3}$
5. $x > -4$
6. $x \geq \frac{21}{5}$

4.4 Start Thinking!

For use before Lesson 4.4

$6x + 24 > 36$; The area of the rectangle is $6(x + 4)$, or $6x + 24$. The area is more than 36 square units, so $6x + 24 > 36$. *Sample answers:* 3, 4

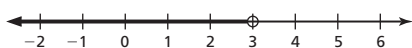
4.4 Warm Up

For use before Lesson 4.4

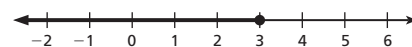
1. B
2. A

4.4 Practice A

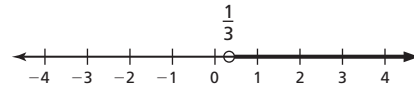
1. $m < 3$;



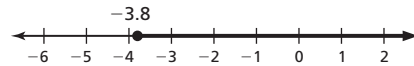
2. $r \leq 3$;



3. $k > \frac{1}{3}$;

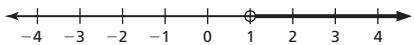


4. $c \geq -3.8$;

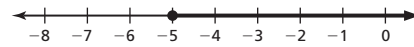


5. $20 + 0.75m \leq 65$; $m \leq 60$; at most 60 miles

6. $b > 1$;



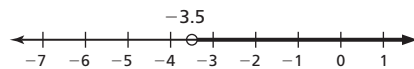
7. $p \geq -5$;



8. $d \leq 15$;

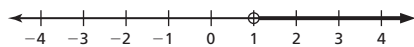


9. $a > -3.5$;

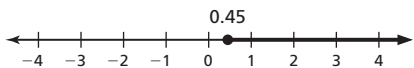


10. $5(x - 2) \geq 35$; $x \geq 9$; at least 9

11. $x > 1$;



12. $w \geq 0.45$;

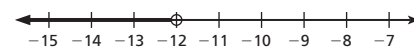


13. a. \$150

- b. $150 + 20c \geq 630$; $c \geq 24$; at least 24 cell phones
- c. $150 + 20c \geq 750$; $c \geq 30$; at least 30 cell phones
- d. $150 + 20c \leq 950$; $c \leq 40$; at most 40 cell phones

4.4 Practice B

1. $q < -12$;

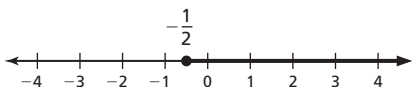


Answers

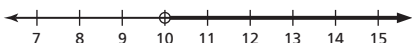
2. $v \geq -6$;



3. $k \geq -\frac{1}{2}$;

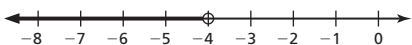


4. $n > 10$;

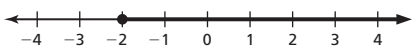


5. $300r + 2000 \geq 14,000$; $r \geq 40$; at least 40 occupied sites

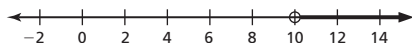
6. $m < -4$;



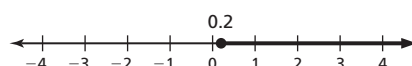
7. $f \geq -2$;



8. $p > 10$;

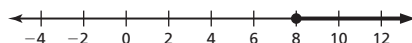


9. $w \geq 0.2$;

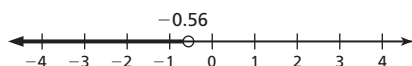


10. $4.5(x + 3) \leq 45$; $x \leq 7$

11. $x \geq 8$;



12. $v < -0.56$;



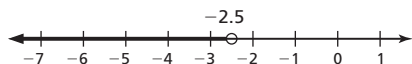
13. a. $750 + 6x \geq 1170$; $x \geq 70$; at least 70 animals

b. $750 + 6x \leq 900$; $x \leq 25$; at most 25 animals

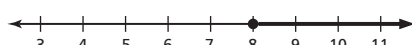
c. \$950

4.4 Enrichment and Extension

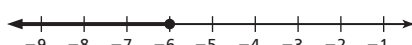
1. $x < -2.5$;



2. $x \geq 8$;



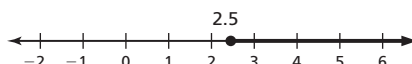
3. $x \leq -6$;



4. $x > 7$;



5. $x \geq 2.5$;



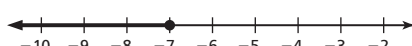
6. $x \leq 10.9$;



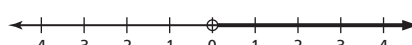
7. $x > 3$;



8. $x \leq -7$;



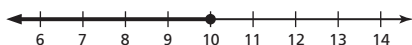
9. $x > 0$;



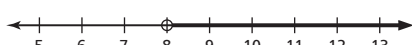
10. $\frac{85 + 91 + x}{3} \geq 90$; $x \geq 94$;



11. $\frac{x + 30 + 20}{3} \leq 20$; $x \leq 10$;



12. $5(3x + 2) > 130$; $x > 8$;



4.4 Puzzle Time

SURE BERT

Technology Connection

So, the home team earned 10 points.