

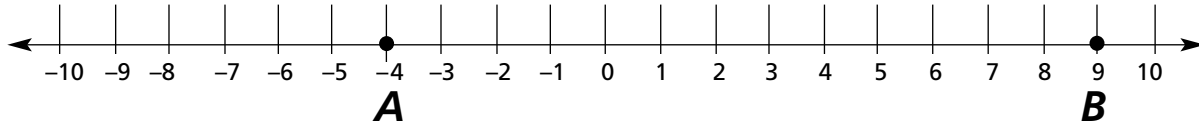
Chapters 1–7 Midterm Mastery Test

Directions Circle the letter of the correct answer.

- Find the sum of $-4 + (-11)$.
A 7
B -15
C 15
D 44
- Use the distributive property to factor $-as - at$.
A $a(s + t)$
B $as(t)$
C $-a(s + t)$
D $-2a(st)$
- Find the quotient of $\frac{-36}{12}$.
A 3
B 18
C 24
D -3
- Find the product of $1.2(10^6) \cdot 2.1(10^{-4})$.
A $3.3(10^{10})$
B $3.3(10^2)$
C $1.9(10^{-4})$
D $2.52(10^2)$
- Simplify the expression $-8(c - b)$.
A $b - 8c$
B $-8c + 8b$
C $c - 8b$
D $8c - 8b$
- Simplify the expression $(12q^3 + q^2 - 6q - 1) - (-3q^3 + 7q^2 - q + 5)$.
A $15q^3 - 6q^2 - 5q - 6$
B $9q^3 + 8q^2 - 7q + 4$
C $15q^3 + 7q^2 - 6q - 1$
D $10q^3 + 4$
- Solve for x . $\frac{-1}{4}x = 14$
A -3.5
B 24
C 56
D -56
- Solve for x . $\frac{6}{x} = \frac{24}{28}$
A 5.14
B 8
C 7
D $1\frac{1}{6}$
- Factor the expression $u^2 + 12u + 35$.
A $u(u + 12)$
B $(u + 5)(u + 7)$
C $(u + 23)(u + 12)$
D $(u + 12)(u + 35)$
- Factor the expression $4g^2 - 1$.
A $(2g + 1)(2g - 1)$
B $4(g^2 - 1)$
C $(4g + 1)(g - 1)$
D $2g(2g - 1)$

Chapters 1–7 Midterm Mastery Test, continued

Directions Write the absolute value of each of the following points.



11. Point *A* _____

12. Point *B* _____

Directions Solve using a proportion.

13. A bicyclist completes a 100-mile race in 3 hours 45 minutes. What is the average speed, in miles per hour, of the bicyclist?

14. If 10 feet of fencing costs \$14.50, how much does 45 feet of fencing cost?

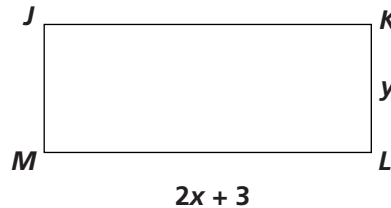
Directions Solve.

15. Write $6y + g + 5a$ in two ways, using the associative property of addition.

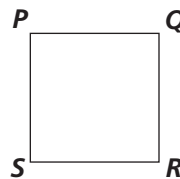
Chapters 1–7 Midterm Mastery Test, continued

Directions Solve.

16. Find the area of rectangle $JKLM$.



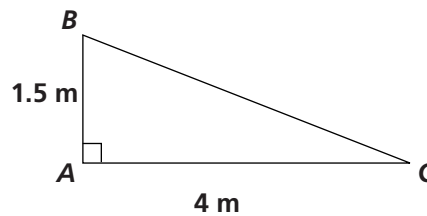
17. What is the length of one side of the square $PQRS$?



$$A = 9x^2 + 6xy + y^2$$

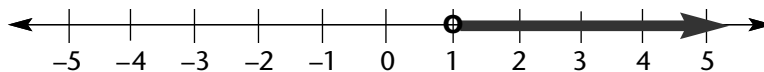
square units

18. What is the length of the hypotenuse of triangle ABC ? Round your answer to the nearest tenth.

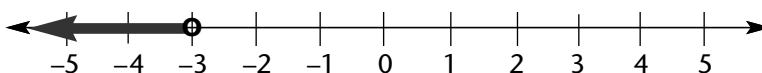


Directions Write a statement of inequality for each graph on the number line. Use x as the variable.

- 19.



- 20.



Chapters 1–7 Midterm Mastery Test, continued

Directions Use the data in the table for problems 21–23.

21. Find the mean of the data. _____

22. Find the median of the data. _____

23. Find the mode of the data. _____

15	8
13	11
15	4

Directions Refer to the spinner. Express the theoretical probability of each event below as a fraction in simplest form.

24. P (odd number) _____

25. P (not a variable) _____

