

Mrs. Pelegreen's Blizzard Bag Plans

Day 3

8<sup>th</sup> Math

Chapter 5 Standards Assessments

Geometry

Standardized Test Practice Chapter 4

7<sup>th</sup> Scholars

Chapter 10 Test Form 2C but omit # 13-17



**Chapter 5**

**Standards Assessment (continued)**

5. Which ordered pair is a solution to the system of linear equations below?

$$y = \frac{1}{4}x + 2$$

$$y = x - 1$$

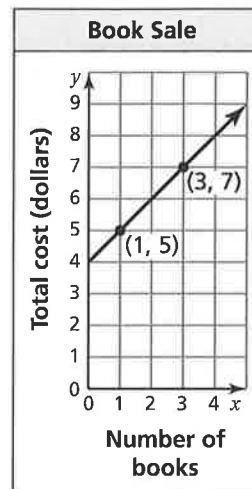
F. (-4, 1)

H. (4, 3)

G. (3, 4)

I. (6, 4)

6. The town library is having a used book sale. The graph to the right can be used to find the total cost  $y$  to buy  $x$  books. The total cost includes the admission fee.



What is the equation of the line shown?

A.  $y = x + 4$

C.  $y = -x + 4$

B.  $y = x - 4$

D.  $y = -x - 4$

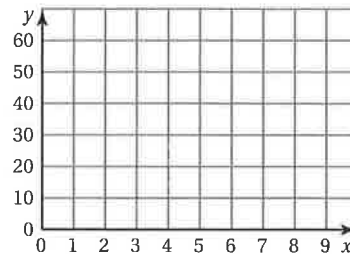
7. **EXTENDED RESPONSE** James and Max are saving their allowances to buy laptop computers. James has saved \$30 already and earns a \$5 allowance each week. Max has saved \$10 already and earns a \$10 allowance each week.

*Part A* Write a system of equations that can represent this situation. Use  $x$  to represent the number of weeks and  $y$  to represent the total amount saved.

Equation for James \_\_\_\_\_

Equation for Max \_\_\_\_\_

*Part B* After how many more weeks will James and Max have the same amount of money saved? Use your equations from Part A and the coordinate grid. Check your solution by solving the system using elimination or substitution.



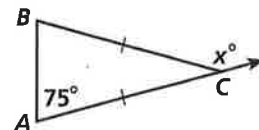
Number of weeks \_\_\_\_\_

# Standardized Test Practice

## Chapter 4

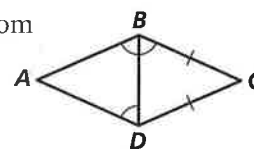
- A quadrilateral's diagonal is 16 cm long. What is the length of a midsegment parallel to this diagonal?
  - 8 cm
  - 32 cm
  - 16 cm
  - 4 cm
  - none of the above
- What is the converse of this statement?  
If a polygon is a hexagon, then the polygon has six sides.
  - If a polygon is not a hexagon, then the polygon does not have six sides.
  - If a polygon does not have six sides, then the polygon is not a hexagon.
  - If a polygon has six sides, then the polygon is a hexagon.
  - A polygon is a hexagon if and only if it has six sides.
  - none of the above
- What is the inverse of this statement?  
If it is warm outside, then we drink water.
  - If we drink water, then it is warm outside.
  - If we do not drink water, then it is not warm outside.
  - We drink water if and only if it is warm outside.
  - If it is not warm outside, then we do not drink water.
  - none of the above
- Simplify  $|17.3 - 22.7|$ .
  - 5.4
  - 15.4
  - 5.4
  - 15.4
  - none of the above
- A triangle has angle measures of  $2x + 10$ ,  $4x$ , and  $5x + 5$ . What are the measures of each angle from smallest to largest?
  - 40, 60, 80
  - 45, 50, 85
  - 30, 40, 110
  - 20, 70, 90
  - none of the above

- Find the value of  $x$  in the figure.
  - 30
  - 105
  - 145
  - 150
  - none of the above



- Which of the following is *not* true about the origin.
  - The  $x$ -coordinate is 0.
  - The graph of  $y = x$  passes through it.
  - The  $y$ -coordinate is 0.
  - It lies in only Quadrant 1.
  - The graph of  $y = 0$  passes through it.

- What can you conclude from this diagram?



- Both triangles are equiangular.
  - $\angle A \cong \angle CBD$
  - $\angle A \cong \angle C$
  - $\overline{CD} \cong \overline{BD}$
  - none of the above
- Identify the pair of statements that forms a contradiction.
    - $ABCD$  is a quadrilateral.
    - $ABCD$  is a rectangle.
    - $ABCD$  is a square
    - $AB > BC$
    - I and II
    - II and III
    - II and IV
    - III and IV
    - none of the above
  - Which could *not* be the lengths of the sides of a triangle?
    - 1, 4, 4
    - 1, 11, 12
    - 3, 5, 7
    - 8, 11, 18
    - none of the above

# Standardized Test Practice (continued)

## Chapter 4

11. For what type of triangle is the point of concurrency of the altitudes outside the triangle?
- A. right triangle      B. obtuse triangle  
 C. acute triangle      D. equilateral triangle  
 E. none of the above

Compare the boxed quantity in Column A with the boxed quantity in Column B. Choose the best answer.

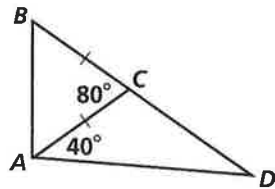
- A. The quantity in Column A is greater.  
 B. The quantity in Column B is greater.  
 C. The two quantities are equal.  
 D. The relationship cannot be determined on the basis of information supplied.

$$\begin{bmatrix} 1 & 2 \\ -2 & -1 \end{bmatrix}$$

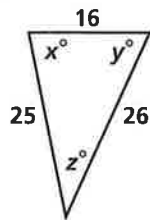
Column A

Column B

12.



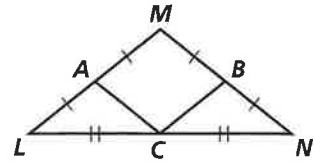
13.



14.

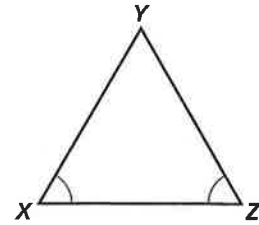
Column A

Column B



15.

16.



17.

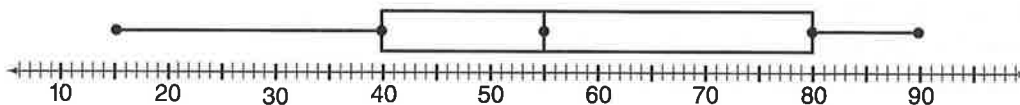
18. **Open-ended** Draw a triangle, and draw its angle bisectors. Then construct the circle inscribed in the triangle.

**Use the following season basketball point scores for Lexington High School for Exercises 1–5.**

**81, 93, 74, 60, 75, 71, 82, 73, 72, 83**

1. List the numbers which would appear in the stem of a stem-and-leaf plot of the scores. 1. \_\_\_\_\_
2. List the ordered leaves which would appear on stem “7” in a stem-and-leaf plot of the scores. 2. \_\_\_\_\_
3. Find the upper quartile. 3. \_\_\_\_\_
4. What is the lower quartile? 4. \_\_\_\_\_
5. Find the interquartile range. 5. \_\_\_\_\_

**Use the box-and-whisker plot below for Exercises 6–8.**



6. What is the range? 6. \_\_\_\_\_
7. Find the upper quartile. 7. \_\_\_\_\_
8. Find the median. 8. \_\_\_\_\_
9. Which graph—a line graph, a box-and-whisker plot, or a circle graph—would be best to display the data about women hockey fans as a percent of all hockey fans? Justify your answer. 9. \_\_\_\_\_
10. A multiple-choice test has 35 questions with four choices given for each. How many answer keys are possible? 10. \_\_\_\_\_

**Today’s cafeteria menu includes salads with four choices of dressing (oil and vinegar, Italian, French, and Russian) and two choices of bread (rye or white).**

11. How many lunch choices include rye bread? 11. \_\_\_\_\_
12. The cafeteria runs out of rye bread and substitutes crackers. How many lunch choices are there then? 12. \_\_\_\_\_

**Chapter 10 Test, Form 2C (continued)**

13. Find the value of  $4!$ . 13. \_\_\_\_\_
14. What is the value of  $P(9, 3)$ ? 14. \_\_\_\_\_
15. Find the value of  $C(9, 3)$ . 15. \_\_\_\_\_
16. In a 9-person race, gold, silver, and bronze medals are awarded to the first three finishers. In how many ways can the medals be awarded? 16. \_\_\_\_\_
17. Jerome, Kanesha, and Bo compete in a school-sponsored 10K-race with 5 other athletes. What are the odds that they would finish in the top three places? 17. \_\_\_\_\_
18. The State of New Hampshire has a daily lotto drawing in which 4 numbers out of 10 are drawn at random. What are the odds of winning the New Hampshire daily lotto? 18. \_\_\_\_\_

***Sue-Lin hit three out of five pitches during batting practice. To simulate her chances of making a hit, she puts 40 marbles in a box. A red marble represents a hit, and a blue represents a miss. After a marble is drawn, it is replaced in the box.***

19. How many red marbles does Sue-Lin need? 19. \_\_\_\_\_
20. In 140 drawings, how many times can she expect to draw a blue marble? 20. \_\_\_\_\_
21. Six coins are dropped on the floor. Find the probability that they will all land on tails. 21. \_\_\_\_\_

***Dinah has written the numbers 1 to 6 on six cards of the same size. She picks two cards at random, without replacing the first one. Find the probability of each of the following.***

22. drawing two cards with numbers less than 4 22. \_\_\_\_\_
23. drawing two cards that are multiples of 2 23. \_\_\_\_\_
24. A die is rolled. What is the probability of rolling a 2 or a prime number? 24. \_\_\_\_\_
25. Suppose  $P(A) = \frac{1}{2}$ ,  $P(B) = \frac{1}{3}$ , and  $A$  and  $B$  are mutually exclusive. What is  $P(A \text{ and } B)$ ? 25. \_\_\_\_\_