Name: _____ Date: _____

CHAPTER TEST A

Algebraic Equations and Inequalities

25

Suggested Time: 30 min

Concepts and Skills

(Questions 1 to 3: 3 × 1 point = 3 points,
Question 4: 2 points,
Questions 5 to 7: 3 × 1 point = 3 points,
Question 8: 2 points)

Solve each equation.

1. $3 + 4x = 19$

2. $8 - \frac{2}{5}m = 0$

3. $7.4r - 9 - 2r = 18$

4. $24a - 3(2a - 5) = 51$

Solve each inequality. Graph each solution set.

5. $4 \leq 3 - 2y$

6. $10 + 8x < 16$

7. $\frac{3}{16} + \frac{9}{8}y \geq \frac{3}{4}$

8. $5(3x - 2) > 2 + 3x$

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Problem Solving

(Question 9: 2 points,
Questions 10 and 11: 2 × 3 points = 6 points,
Questions 12 and 13: 2 × 2 points = 4 points,
Question 14: 3 points)

Write an equation for each problem. Solve and show your work.

9. Graham spent a total of $7.25 on 8 oranges and a packet of strawberries. If a packet of strawberries cost $2.85, how much did each orange cost?

10. A ski gondola cabin can safely carry x number of people. There are already $\frac{2}{3}x$ people in the cabin when another 15 are allowed to board it. How many people can the cabin carry?

11. The sum of the interior angle measures of a triangle is 180°. Angle B is three times the measure of angle A. Angle C is 52°. Find the value of x.