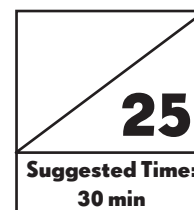


## CHAPTER TEST A



# Algebraic Equations and Inequalities



**Concepts and Skills** (Questions 1 to 3:  $3 \times 1$  point = 3 points,  
Question 4: 2 points,  
Questions 5 to 7:  $3 \times 1$  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.  $5(3x - 2) > 2 + 3x$

**Problem Solving**

(Question 9: 2 points,  
Questions 10 and 11:  $2 \times 3$  points = 6 points,  
Questions 12 and 13:  $2 \times 2$  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  $180^\circ$ . Angle  $B$  is three times the measure of angle  $A$ . Angle  $C$  is  $52^\circ$ . Find the value of  $x$ .

