

**UNIT**  
**3**
**Expressions, Equations, and Inequalities**
**Unit Test: A**

1. Which equation below matches the relationship shown in the table?

<b>x</b>	0	1	2
<b>y</b>	0.5	3.5	6.5

- A  $y = 2x + 0.5$       C  $y = 3x$   
 B  $y = 2x + 2$       D  $y = 3x + 0.5$
2. Which value of  $x$  satisfies the equation below?

$$4x - 7 = 25$$

- A  $x = -8$       C  $x = 8$   
 B  $x = 4.5$       D  $x = 32$
3. The equation  $y = 15x + 500$  represents the amount  $y$  that Lin earns by working for  $x$  hours, plus a performance bonus. What is Lin's hourly rate?

- A \$10      C \$50  
 B \$15      D \$500
4. What is the solution to the inequality below?

$$2x + 10 \leq 40$$

- A  $x \leq 10$       C  $x \geq 10$   
 B  $x \leq 15$       D  $x \geq 15$
5. What is the solution to the equation below?

$$\frac{x}{-3} = 4$$

- A  $x = -7$       C  $x = -1$   
 B  $x = -12$       D  $x = -\frac{4}{3}$

6. Which table represents the same linear relationship as  $y = 2x - 5$ ?

A

<b>x</b>	0	2	4
<b>y</b>	-5	-1	3

B

<b>x</b>	0	2	4
<b>y</b>	-5	1	3

C

<b>x</b>	0	2	4
<b>y</b>	2	-1	3

D

<b>x</b>	0	2	4
<b>y</b>	2	2	3

7. Which of the following inequalities has the graphed solution below?



- A  $x + 1 \geq 0$       C  $x + 1 \leq 0$   
 B  $x - 1 \geq 0$       D  $x - 1 \leq 0$
8. Which equation has  $x = -2$  as the solution?
- A  $2x + 10 = 14$       C  $3x + 10 = 1$   
 B  $2x + 8 = 4$       D  $3x - 8 = 7$
9. Boris currently has \$1,200 in his savings account. He saves \$25 per month. He saves the same amount each month and does not take any money out of the account. In how many months will Boris have \$1,450?
- A 10      C 15  
 B 12      D 25
10. Kayla tutors a student for \$18.50 per hour. She spends \$50 on transportation. How much does she earn if she tutors for  $x$  hours?
- A  $18.50x - 50$       C  $50x - 18.50$   
 B  $18.50x + 50$       D  $50x + 18.50$