

Mathematics 9
Unit 6 Solving Linear Equations Practice Test**Part A: Multiple Choice** – Circle your answer.
.....1. Solve for “a” in the equation $36 - 2a = -8$

a. $a = -46$

b. $a = -22$

c. $a = 22$

d. $a = 44$
.....

2. The formula for the area of a rectangle is $A = lw$, where l represents the length and w represents the width. A rectangle whose length is 8 cm has an area of 104 cm^2 . Determine the width of this rectangle.

a. 10 cm

b. 13 cm

c. 14 cm

d. 18 cm
.....

3. Solve for x : $4x - 3 = \frac{7}{3} - \frac{4x}{3}$

a. $x = \frac{1}{8}$

b. $x = \frac{2}{3}$

c. $x = 1$

d. $x = 2$
.....

4. Which expression is equivalent to $\frac{x+4}{5}$

a. $5(x+4)$

b. $\frac{1}{5}(x+4)$

c. $x+4 \div 5$

d. $5x+0.8$
.....

5. The length of a rectangular field is 7 metres greater than its width. If you used w to represent the width, what expression would you use for the length?

a. $w + 7$

b. $w - 7$

c. $7w$

d. $\frac{w}{7}$
.....

6. 15% of a number is 12. What is the number?

a. 0.8

b. 1.8

c. 8

d. 80

7. $x = 5$ is a solution to which equation(s) in the chart below.

I	$-3x + 12 = 42$
II	$3x + 20 = 5(x + 6)$
III	$6x + 20 = 4x + 30$
IV	$\frac{1}{3}x + 3 = 5$
V	$6x = 30$

a. II, III

b. III, V

c. I, IV

d. II, V

Part B: Written Response – Show all work in a neat and organized manner for full marks.

1. Solve each of the following equations

a. $10x = -40$

b. $\frac{8}{x} = 32, x \neq 0$

c. $24h - 9 = 15$

d. $26 = 2 - 6t$

e. $5x + 6 = 2(x + 6)$

f. $6u + 7 - 3u = 8 + 5u - 11$

g. $-2(m + 10) - 7(4 - 2m) = 0$

h. $\frac{m}{6} - 5 = \frac{1}{2}m$

2. Transfer your solutions from #1e and #1g. Show a check for each solution.

a. #1e Answer: _____ b. #1g Answer: _____

Check#1e: $5x + 6 = 2(x + 6)$

Check #1g: $-2(m + 10) - 7(4 - 2m) = 0$

3. Four more than three times a number is 49.

a. Write an equation to represent the statement.

b. Solve the equation.

4. Tim is applying for a new job in retail sales.
- Road Runner Clothing and Accessories pays \$100 a day plus 5% of his total sales. Write an expression to represent the total daily pay at Road Runner Clothing and Accessories.
 - Blue Jag Boutique pays \$75 a day plus 10% of his total sales. Write an expression to represent the total daily pay at Blue Jag Boutique.
 - How much does Tim need to sell for each job to pay the same daily amount?
5. The sum of two consecutive integers is 503.
- Write an equation to represent the statement
 - Solve the equation to find the two integers.