

# Unit 7 Quiz Study Guide

Name: Key

Identify problems 1-5 as an expression, equation or inequality.

	Expression	Equation	Inequality
1. Can contain operations	✓	✓	✓
2. Contains an equal sign		✓	
3. $x + 12 > x + 13$			✓
4. A mathematical phrase	✓		
5. $\frac{3}{4} + 7(2) - 12 + 3^0 = 14 - x$		✓	

For problems 6- 10, determine whether the given value is a solution. Write "yes" or "no".

	Yes or No
6. $w + 13 + 2w - 3 \leq 5$ ; for $w = 0$ $0 + 13 + 2 \cdot 0 - 3 \leq 5$ $13 - 3 \leq 5$ $10 \leq 5$	No
7. $6x = 35$ ; for $x = 6$ $6 \cdot 6 = 35$ $36 = 35$	No
8. $45 - 8p = 18 + p$ ; for $p = 3$ $45 - 8 \cdot 3 = 18 + 3$ $45 - 24 = 21$ $21 = 21$	Yes
9. $9m + 2 < 70$ ; for $m = 7$ $9 \cdot 7 + 2 < 70$ $63 + 2 < 70$ $65 < 70$	Yes
10. $18g \div 2 \cdot 4 = 5$ ; for $g = 1$ $18 \cdot 1 \div 2 \cdot 4 = 5$ $18 \div 2 \cdot 4 = 5$ $9 \cdot 4 = 5$ $36 = 5$	No

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Solve the equations for problems 11- 15. Check your solution!

Solve	Check
11. $\frac{x}{8} = 11$ $8 \cdot \left(\frac{x}{8}\right) = 11 \cdot 8$ $x = 88$	$\frac{88}{8} = 11$ $11 = 11 \checkmark$
12. $6v = 42$ $\frac{6 \cdot v}{\div 6} = \frac{42}{\div 6}$ $v = 7$	$6 \cdot 7 = 42$ $42 = 42 \checkmark$
13. $z - 49 = 149$ $\frac{z - 49}{+ 49} = \frac{149}{+ 49}$ $z = 198$	$\frac{198 - 49}{- 49} = \frac{149}{- 49}$ $149 = 149 \checkmark$
14. $7x - 2x = 37 - 2$ $\frac{7x - 2x}{\div 5} = \frac{37 - 2}{\div 5}$ $x = 7$	$7 \cdot 7 - 2 \cdot 7 = 37 - 2$ $49 - 14 = 35$ $35 = 35 \checkmark$
15. $3(33) - 2^2 = x - 4$ $\frac{99 - 4}{+ 4} = \frac{x - 4}{+ 4}$ $95 = x$	$95 = 99 - 4$ $95 = 95 \checkmark$