Summative Assessment : Algebraic Expressions and Equations

name: _____ **date:** _____

Outcome: Algebraic Expressions and Equations					
35%	Level 1 (55%)	Level 2 (65%)	Level 3 (75%)	Level 4 (90%)	Level 4+ (100%)
Student has not yet demonstrated understanding of the standard.	Student is demonstrating an emerging understanding of the standard.	Student's demonstration of understanding is approaching the standard.	Student's demonstration of understanding is reaching the standard.	Student's demonstration of understanding is exceeding the standard.	Student's demonstration of understanding is extending the standard.

Reaching Standard (Level 3)

1. Solve the following equation, then verify that your solution is correct.

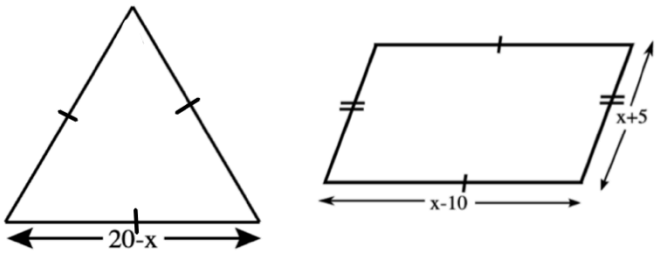
$$-2g+10=-11-3g$$

2. The distance *d*, in metres, that an object will fall near a planet or the Moon is given by $d=\frac{1}{2}at^2$, where *t* is the time, in seconds, and *a* is the acceleration, in metres per second squared (m/s^2). If a free-falling object near the Moon falls 61.5 m in 15 s, what is the value of *a* for the Moon?

Exceeding Standard (Level 4)

3. Solve **one** of the following equations, then verify that your solution is correct.
   a. $2(3x - 2) = -4(x + 6)$ $4 = 3y - (6y - 5)$

4. The following two shapes have the same perimeter. What value of x makes this true? Verify your solution.



Extending Standard (Level 4+)

5. Solve **one** of the following equations, then verify that your solution is correct.

$$\frac{1}{4}(3x + 2) = -\frac{5}{2} \qquad \frac{3p - 2}{4} = \frac{4p + 2}{3}$$

6. Kim's Coffee Shop sells a cup of tea for $1.05, a cup of coffee for $1.35, and a cup of hot chocolate for $2.25. One busy day, 20 more cups of coffee than cups of hot chocolate were sold, and 30 more cups of coffee than tea, for a total of $202.50 for all three hot drinks**.** How many cups of each drink were sold?