SOLVING MULTI-STEP EQUATIONS
W/DISTRIBUTIVE PROPERTY & LIKE TERMS

BELL WORK

1. Jackie bought concert tickets online. The tickets cost $24.50 each, and there is a $9.50 processing fee. If Jackie spent a total of $83 on tickets, write an equation that could be used to find how many tickets, *t*, she purchased. Do not solve.

Equation: _____

2. Ms. Barnes bought a math book for $75.95 which included a tax of 8.5%. What was the original price of the book?

Equation:_____

EXAMPLES: Solve each equation showing all steps. Check the solutions on the calculator.

1) $8m - (8 - m) = 28$ m = _____	2) $\dfrac{1}{2}(4s + 12) - 5s = 30$ s = _____
3) $17 = c - 3(c + 1)$ c = _____	4) $2(w + 3) - 5(w - 1) = 32$ w = _____

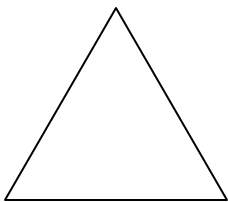**EXAMPLES: Write an equation for each situation and solve.**

5) Taking a cab in New York City is expensive. There is a base charge of $2.50 as soon as you enter the cab, plus an additional $2.50 per mile traveled. Suppose you only have a single $20 bill in your pocket and you don't plan to give any tip. How many miles can you ride?

Equation:_____

6) A family buys airline tickets online. Each ticket costs $167. The family buys travel insurance with each ticket that costs $19 per ticket. The website charges a fee of $16 for the entire purchase. The family is charged a total of $1132. How many tickets did the family buy?

Equation:_____

7) In a triangle the shortest side is 7 inches shorter than the longest side. The third side is 10 inches less than twice the longest side. If the perimeter of the triangle is 15 inches, find the length of each side.

Equation:_____