6th – 8th Grade:

Apple Orchard

1. The saying "a bushel and a peck" is an expression of love (you might hear this from an older relative). The saying originates from the measurement units of "bushel" and "peck", which were used in the past to measure apples and other dry goods. One bushel is equal to 4 pecks. Write an equation to represents the number of bushels (*b*) based on (*x*) number of pecks.

Equation	

2. Tuttle Orchard has two sections of apple trees. One section has 15 rows with 10 trees in each. The other section has 8 rows with 12 trees in each. Each tree produces roughly 500 pounds of apples. Mr. Tuttle keeps 10% of the apples to sale to customers who visit the orchard. The rest he sells to a local bakery. The orchard sales the apples to its guest at $2.50 per pound. The bakery gets a discount and only pays $1.75 per pound. What is the total revenue from one year's apple harvest? Justify your answer.

_____

_____

_____

3. Kevin is selecting new pie dishes for his bakery. Pie dish is in the shape of a cylinder. He wants the dish that will make a thinner pie (less filling) but needs about the same amount of crust. Review the two options.

   - **Option A**: the dish has a radius of 4.5 inches and is 1.5 inches deep
   - **Option B**: the dish has a radius of 4 inches and is 1.75 inches deep

   Which option do you recommend Kevin use? Justify your answer.

_____

_____

_____