**Lower Elementary:**

*Question:* Anthony sails 9,500 miles from Turkey to Peru. If Anthony takes the same route back to Turkey from Peru, how far will he have sailed in total?

**Upper Elementary:**

*Question:* Nellie puts a batch of apple pies into the oven at 6:17 am. When they go into the oven, the internal temperature of the pies is 60° Fahrenheit. The temperature increases at a rate of 2.5° per minute. If Nellie wants the internal temperature of the pies to reach 160°, at what time should she take them out of the oven?

**Middle School:**

*Question:*  It takes a barber 12 minutes to shave a face and 30 minutes to give a haircut. The barber works for 3 hours straight and spends twice as much time shaving faces as he does giving haircuts. If none of his customers get both a haircut and a shave, then how many customers does he see in total?

**Algebra and Up:**

*Question:* A cottage by the sea has a value of $750,000, which has increased at an annual rate of 5% for the past 10 years. How much was the cottage worth 10 years ago? You may use your calculator.

**Lower Elementary:**

*Question:* Anthony sails 9,500 miles from Turkey to Peru. If Anthony takes the same route back to Turkey from Peru, how far will he have sailed in total?

*Answer:* 19,000 miles

*Solution:* Anthony’s route from Turkey to Peru and back again is 9,500 + 9,500 = 19,000 miles in total. Remember to carry the 1 in the thousands place!

**Upper Elementary:**

*Question:* Nellie puts a batch of apple pies into the oven at 6:17 am. When they go into the oven, the internal temperature of the pies is 60° Fahrenheit. The temperature increases at a rate of 2.5° per minute. If Nellie wants the internal temperature of the pies to reach 160°, at what time should she take them out of the oven?

*Answer:* 6:57 am

*Solution:* In order to increase to 160°, the internal temperature of the pies will need to rise 160° – 60° = 100°. Since 100° ÷ 2.5° per minute = 40 minutes, it’ll take 40 minutes for the pies to bake. So, Nellie should take them out of the oven at 6:57 am.

**Middle School:**

*Question:*  It takes a barber 12 minutes to shave a face and 30 minutes to give a haircut. The barber works for 3 hours straight and spends twice as much time shaving faces as he does giving haircuts. If none of his customers get both a haircut and a shave, then how many customers does he see in total?

*Answer:* 12 customers

*Solution:* If the barber spends twice as much time shaving faces as he does giving haircuts, he must spend 2 hours shaving faces and 1 hour giving haircuts. Since it takes 12 minutes to shave a face, the barber shaves 5 faces per hour--that’s 10 in 2 hours. Each haircut takes 30 minutes, so he can give 2 haircuts in an hour. That means he sees 10 + 2 = 12 customers.

**Algebra and Up:**

*Question:* A cottage by the sea has a value of $750,000, which has increased at an annual rate of 5% for the past 10 years. How much was the cottage worth 10 years ago? You may use your calculator.

*Answer:* $460,434.94

*Solution:* The value of the cottage is currently $750,000, and it was worth ***C*** dollars 10 years ago. If its value has increased 5% each year for the past 10 years, then we know that $750,000 = ***C*** × 1.0510. To solve for ***C***, we divide $750,000 ÷ 1.0510 = $460,434.9402, which rounds to $460,434.94.