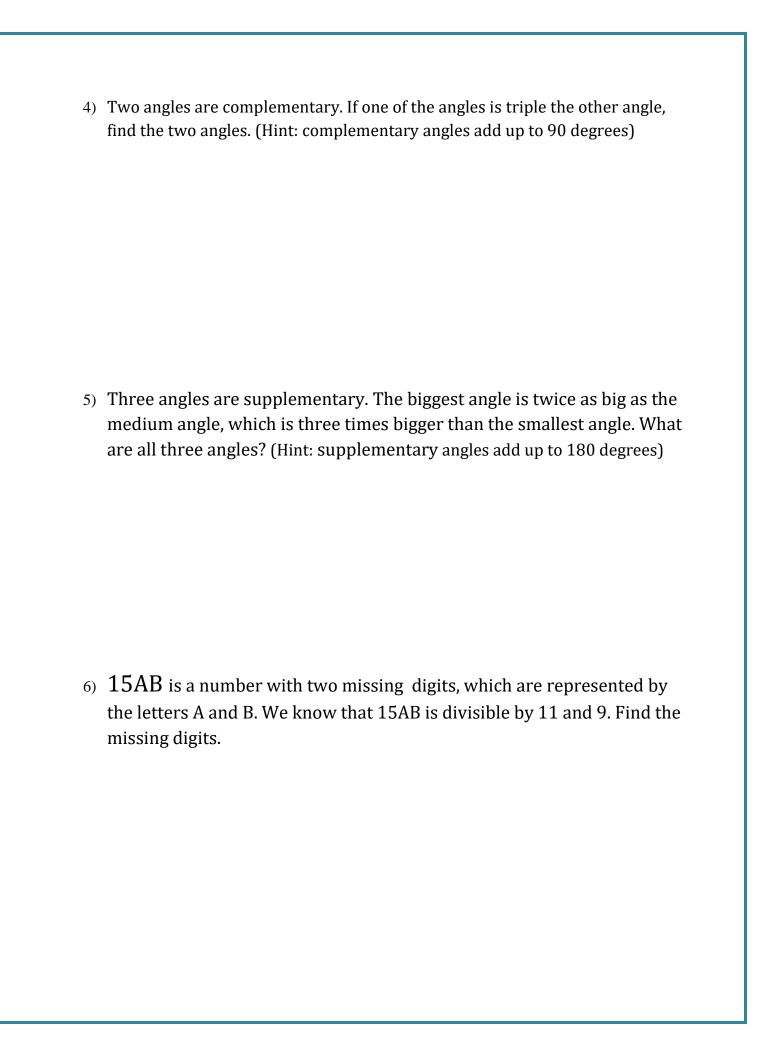1) There are 10 runners in a marathon race, with the winner getting a gold medal, 2nd place getting silver, and 3rd place getting bronze. How many different ways can these medals be awarded?

2) There are 10 different balls inside of a bag. How many different ways can you pick three balls out of the bag?

3) There are 35 students in a math class. Every student plays Roblox or Minecraft (or both). There are 25 students who play Roblox, and 15 students who play Minecraft. How many students play both? (Hint, use a Venn Diagram).

4) Two angles are complementary. If one of the angles is triple the other angle, find the two angles. (Hint: complementary angles add up to 90 degrees)

5) Three angles are supplementary. The biggest angle is twice as big as the medium angle, which is three times bigger than the smallest angle. What are all three angles? (Hint: supplementary angles add up to 180 degrees)

6) 15AB is a number with two missing digits, which are represented by the letters A and B. We know that 15AB is divisible by 11 and 9. Find the missing digits.

7) You and your friend each have your own bag with 5 different pieces of candy.
a) How many ways can you pick three pieces of candy from your bag (in any order)?

b) How many ways can your friend pick two pieces of candy from their bag (in any order)

c) Do you notice anything surprising about the answers to these problems? What did you notice? Why do you think that happened?