AFM PreQuiz Worksheet Answers Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write each expression using factorials and then evaluate.

\_\_\_\_\_120\_\_\_\_\_1.  \_\_\_\_\_\_95.040\_\_\_\_\_\_2.  \_\_\_\_\_240\_\_\_\_\_\_\_3. 

\_\_\_\_\_9,765,625\_\_\_4. Each question on a ten-question multiple-choice quiz has answer choices labeled A, B, C, D and E.

 How many different ways can a student answer the ten questions?

\_\_\_102,515,625\_\_\_5. How many different 3 letter, 4 digit license plates are there without a W and a 2?

\_\_\_\_\_\_256\_\_\_\_\_\_\_6. A coin is tossed eight times. How many possible sequences of heads or tails are possible?

\_\_\_\_120,960\_\_\_\_\_7. Six different hardcover books and four different paperbacks are placed on a shelf. How many ways can they be

 arranged if all the paperback books are together?

\_\_\_\_\_40,320\_\_\_\_\_8. In how many ways can 9 people sit around a campfire?

\_\_\_\_\_181,440\_\_\_\_9. In how many ways can 10 charms be placed on a bracelet with no clasp?

\_\_\_\_\_30,240\_\_\_\_\_10. Caid has 10 holiday candles, each a different color. How many ways can he arrange the candles in a

 candelabra that holds 5 candles?

\_\_\_\_\_\_4,845\_\_\_\_\_11. In how many ways can a student choose 4 books from 20 that are on the library shelf?

\_\_\_\_124, 740\_\_\_\_\_12. How many committees of 5 men and 4 women can be selected from a group of 10 men and 12 women?

\_\_\_\_\_\_\_588\_\_\_\_\_\_13. From a group of 10 men and 8 women, how many committees of six contain at least 5 women?

\_\_\_\_204, 490\_\_\_\_\_14. Seven cards are drawn from a standard deck of cards. How many hands consist of 4 hearts and 3 clubs?

\_\_\_\_\_5,148\_\_\_\_\_\_15. How many five card hands consist of the same suit?

\_\_\_\_\_48, 620\_\_\_\_\_16. How many 9 player baseball teams can be made from a group of 18 players?

\_\_\_\_\_3,360\_\_\_\_\_\_17. How many different ways can the letters in “PARALLEL” be arranged?

\_\_\_\_\_2,520\_\_\_\_\_\_18. How many ways can seven keys be arranged on a key ring with a VIC card already on the ring?

\_\_\_\_\_\_\_12\_\_\_\_\_\_\_19. How many ways can 5 people be seated around a table if 2 of the people must be seated next to each other?

\_\_\_\_\_22,308\_\_\_\_\_\_\_20. Five cards are drawn from a standard deck of cards. How many hands consist of 2 diamonds and 3 spades?