1. **(2 points)**
Simplify: $924 \div (21 \times (73 - 29))$.

2. **(2 points)**
Anthony can pull out 13 weeds per minute, or he can plant one daffodil per 3 minutes. His garden has no daffodils and 179 weeds.
A. What is the time, rounded to the nearest whole minute, that it will take him to pull out all of the weeds?
B. Anthony wants 21 daffodils in his garden. How long will it take him, in minutes, to plant all of them in his garden?
Find $A + B$.

3. **(2 points)**
Let
A $= 10 \times 12 - 11 \times 11$
B = the number of degrees in a right angle
C $= 67 - 4 \times 5$
D = The missing number in the sequence $1, 3, \_, 27, 81, ...$
Find $A \times (C - B) - D$.

4. **(2 points)**
Simplify: $2^3 \times 5^2 + 2^2$. In other words, write the number of times Sherlock Holmes has been portrayed in film.

5. **(3 points)**
Cha Cha the choo-choo train has a 1050-mile circuit that she must complete every day. Cha Cha's circuit has 9 stops and each stop takes 20 minutes. What speed, in miles per hour, does Cha Cha need to average? (Hint: Find the number of hours she spends driving.)

6. **(3 points)**
Wirt loves to make mixtapes for Sarah. The first mixtape is 2 hours long. If his first mixtape consists of 70% clarinet music and 30% poetry recital, then how many minutes of clarinet music is on his first mixtape?

7. **(3 points)**
Charmi has $275. If she spent 24% on shoes, how much money does she have left?

8. **(3 points)**
If I cry for 3 minutes every time the song "Shiny" plays, and I produce tears at a rate of $\frac{1}{24}$ lbs. per minute, how many times will I need to listen to "Shiny" before I have a $\frac{3}{8}$ lbs. of tears?

9. **(4 points)**
Ammar has been procrastinating on his terms for history class. Each term takes him 6 minutes. If Ammar has 20 terms and he always finishes his terms at the moment they are due, how long before the due date does Ammar need to begin working on his terms? Express your answer in hours.

10. **(4 points)**
Let
A $= 17.7 - 2.2 - 9.4 + 6.5$
B $= 0.76 + 1.1 + 7.5 - 0.07$
C $= 7.9 + 11.7 - 15.8$
D $= 0.01 + 2.53 + 1.05$
Calculate $A + B - C - D$ as a decimal.

11. **(4 points)**
Let
A = the arithmetic mean of the set 14, 5, 2, 25, 16, 5, 18, 3, 12, 10
B = the mode of the set 5, 3, 7, 5, 6, 5, 7, 7, 5, 6, 4, 4, 5, 6, 7, 6
C = the median of the set 10, 10, 10, 10, 10, 10, 12, 12, 12, 12, 12, 12
Calculate $A + B + C$.

12. **(4 points)**
Bonsai, when translated directly from Japanese, means "tray planting." The components of any bonsai display include one tray, one tree, and one covering for the soil. If Rapitael wishes to present his bonsai at an exhibition and he has 7 trays, 11 trees, and 13 soil coverings, how many distinct displays can he set up?

13. **(5 points)**
Joel "The Killer" John has recently come into a large amount of $100 bills, after Jeff "The Victim" John met his untimely demise. Joel then goes shopping and buys a cardigan, tie, and a fancy cigar which costs $13.41 altogether. He pays with one of his newly acquired $100 bills. What is the minimum number of bills and coins the cashier needs to give to Joel as his change? Assume the cashier has enough money and is using standard United States currency.

14. **(5 points)**
In the alternate reality contained in universe T756, blue whales have become the dominant species on the planet. One particular blue whale is an obnoxious one named Robert Finneberg. Robert wants to pull off a prank on the High Whale Council, the democratically elected government of the whales. There are 42 members on the Council. For his prank he fills the rooms of $\frac{1}{3}$ of the Council with balloons, switches the krill of $\frac{1}{2}$ of the Council's breakfast with crawfish, and burns down the houses of $\frac{1}{7}$ of the Council's houses as they sleep. What is the largest possible ratio of pranked members to un-pranked members given those were the only pranks he did? Express your answer as an improper fraction.

15. **(5 points)**
Anna is an avid reader. Starting from January 1st, she begins recording the number of books she has read since then. Her average rate for books read per month after November is 12. After December her average is 17 books read per month. How many books does she read in December?