1. Find $(5 - (4 - (3 - (2 - (1 - 0)))))$

2. Jamie has an apple tree and a pear tree. He has twice as many pears as apples. If he has 10 apples, how many apples and pears does he have in total?

3. On Day 1 Jeffrey watches one video, on Day 2 he watches two videos, on Day 3 he watches three videos and continues the pattern. At the end of Day 7, what is the total number of videos he has watched in all?

4. Find the number such that the average of 5, 9, and the number is the number.

5. One inch is approximately 2.54 centimeters. Parth is 65 inches tall. To the nearest centimeter, how much taller is he than 5 feet?

6. The length and width of a rectangle are 2 and 5 respectively. Find the percent increase in the area of the rectangle if the length and width are increased by 2.

7. On Monday, an item in a store costs $90. If the store has a sale of 50% off the item on Tuesday, but on Wednesday the price is raised to 150% of Tuesday's cost, how much does the item now cost?

8. What is the sum of the GCD (Greatest Common Divisor) and LCM (Least Common Multiple) of 60 and 18?

9. What is the least number greater than 8000 that is divisible by 11?

10. Jeffrey and Annabelle are at Tea Place. The total cost for their drinks is $9. Jeffrey is trying to be nice, and says he will pay a value twice as much as Annabelle pays plus an additional 48 cents. Find the total amount Jeffrey pays.

11. Bob is a teacher at Mathematics Elementary School. He has a class of 30 students. He wishes to split the class into equally sized groups (there must be AT LEAST 2 groups). What is the sum of all the possible group sizes?

12. Define a function x $<!>$ y = xy + x + y + 1. Find $(3 <!> 4) <!> 5$.

13. Rick is taking a 6 problem true/false test that he has not prepared for. Before the test, his teacher tells him that there are either 0 or 3 problems with "True" as answers. What is the maximum amount of problems Rick can guarantee to correctly solve using his teacher's information?

14. A regular polygon has an interior angle of 120° and a side length of 2. A different regular polygon with an interior angle of 90° has the same perimeter as the first polygon. Find the area of the second polygon.

15. A painter equally mixes 4 gallons of red paint and 1 gallon of white paint. He paints a wall using 1 gallon if his mixed paint. He then adds another gallon of white paint to the remaining mixture. What percentage of the remaining mixture is now white paint?

16. Find the length of AD in the diagram below.
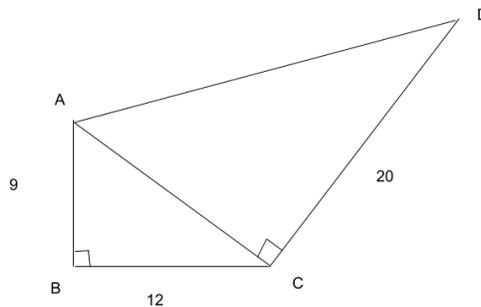
17. Abhinav and Tanush are both teachers at Mathematics High School. They wish to form a joint committee of 4 students from both of their classes, and they both teach 4 students each. How many possible joint committees are there, if not all of the students can be from one class?

18. Three different circles and two different lines are drawn on a piece of paper. What is the greatest number of intersections in the diagram?

19. Bob travels to school from his home on 5 different days. On day 1, he travels at 60 miles per hour. On day 5, he travels at 40 miles per hour. Given that the time it takes for him to reach school on these 5 days forms an arithmetic sequence, find the speed in which he travels to school on day 3.

20. The sum of two dice rolls is recorded 108 times. Find the expected number of $4's$ recorded.

21. A regular polygon has an interior angle measure of 135 degrees. How many diagonals does it have?

22. Parth and Andy are both running 100 laps around a track. Parth runs every lap that is a multiple of 3 in 6 minutes, but otherwise runs laps in 8 minutes. On the other hand, Andy runs every lap that is a square number in 5 minutes, but otherwise runs laps in 9 minutes. When Parth finishes, what lap is Andy on?

23. Tom has the fractions $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$, $\frac{4}{5}$, $\ldots$, $\frac{99}{100}$. He can choose to flip the numerators and denominators of $\frac{k}{k+1}$ and all the fractions that come after it in the given sequence. Find the k he should pick such that the product of all the unchanged AND changed fractions is 1.

24. A ball is dropped from a height of 16 feet. At every bounce, the ball reaches a height of 75% of its previous height. What is the total distance travelled by the ball (in the vertical direction)?

25. A quarter circle with radius 4 is centered at the origin, and is in the first quadrant (bounded by the x and y-axis). The line $x = 2$ is drawn. Find the area of the portion of the quarter circle to the right of the line $x = 2$.