

1. Only one number between 33,000 and 34,000 with units digit 6 is a perfect square. What is the sum of that number's tens and hundreds digits?

1. _____

2. Michael tells the following riddle about his favorite number: "My number is the sum of 126 plus one-fourth my number minus one-eighth my number." What is Michael's favorite number?

2. _____

3. Jessica ran the 6.2-mile Bolder Boulder road race in 55 minutes. At the same pace, how many minutes will it take her to run the Horsetooth Half-Marathon (13.1 miles)? Express your answer as a decimal to the nearest tenth.

3. _____

1999-2000
 School Competition
 Target Round
 Problems 3 and 4

Name _____

DO NOT BEGIN UNTIL YOU ARE
 INSTRUCTED TO DO SO

4. George and Leo each toss a number tetrahedron with the numbers 1-4 on the faces. They then multiply the resulting pair of numbers. If the product is less than 9, George wins; otherwise, Leo wins. What is the probability that Leo will win? Express your answer as a common fraction.

4. _____

George's Initial	Leo's Initial

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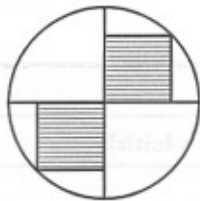
5. At a diving competition, Alex and Brenda received the scores shown. Each diver's final score is determined by dropping the highest and lowest scores, calculating the sum of the remaining scores, and multiplying that sum by 0.6. What is the positive difference between the final score of Alex and the final score of Brenda? Express your answer as a decimal to the nearest tenth.

5. _____

Alex	9.0	9.0	8.5	10.0	8.0	9.5	9.5
Brenda	9.3	9.9	10.0	9.5	9.7	8.0	8.6

6. In the figure shown, each shaded region is a square with one vertex at the center of the circle and the opposite vertex on the circumference of the circle. The radius of the circle is 10 inches. If a dart is thrown and hits inside the circle, what is the probability that it will land inside a shaded region? Express your answer as decimal to the nearest hundredth.

6. _____



7. The stereos sold at the We Are Music store are reduced 30%. Employees get an additional 15% discount off the reduced price. The purchase price of a stereo for an employee during the sale is \$297.50. How many dollars was the original price of the stereo?

7. _____

8. Ninety-six girls were surveyed at Euclid High School. There were 48 softball players and 45 track athletes. If $\frac{1}{6}$ of the girls surveyed did not play either sport, how many girls played both sports?

8. _____
