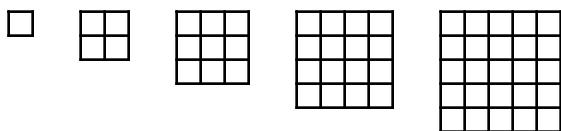


2002 Washington State Math Championship

Unless a particular problem directs otherwise, give an exact answer or one rounded to the nearest thousandth.

Algebra - Grade 5

1. How many multiples of 7 are between 17 and 170?
2. A case of tennis balls costs \$55.44. There are 3 tennis balls in each can, and in each case the cans are arranged in 6 rows of 4 cans each. How much is each tennis ball worth?
3. What is the next number in this sequence? 61, 50, 38, 25, 11, ___
4. The sum of two numbers is -34; their product is 288. What is their difference?
5. How many different squares are in the next figure?



6. If $P \diamond Q = 2P - 3Q$, what is the value of $1091 \diamond (39 \diamond (36 \diamond 22))$?
7. A three-day truck rental from Haul Monitor costs \$36.00 per day plus \$0.15 per mile. Renting the same truck from Gotta Haul for 3 days costs \$57.00 per day with unlimited mileage. After how many miles is it less expensive to rent from Gotta Haul?
8. If $8 \otimes 6 = 44$, $7 \otimes 6 = 34$, and $7 \otimes 5 = 45$, what is $8 \otimes 5$?
9. When 4 numbers are added, three at a time, their sums are 20, 22, 26, and 31. What is the sum of all 4 numbers?
10. What is the next number in this sequence? Express your answer as a reduced fraction.

$$\frac{1}{3}, \frac{2}{5}, \frac{3}{7}, \frac{5}{9}, \frac{8}{11}, 1, \text{ ---}$$