

# 2002 Washington State Math Championship

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

## Mental Math - Grade 5

1. What is 8 times 31?
2. A square with area 4 is combined with 8 others just like it to form a larger square. What is the perimeter of the larger square?
3. What is one-ninth of 72?
4. What is the difference between one-fourth and one-fifth?
5. What is the least common multiple of the number of degrees in a right angle and the number of degrees of one angle of an equilateral triangle?
6. What is the square root of 169?
7. What is the sum of 24, 59, and 16?
8. What is the perimeter of regular decagon with side length 9?
9. What is 17 percent of 300?
10. How many thousand is 250 times 300?
11. Radii of a circle cut it into 5 equal sectors. The central angle of each sector is how many degrees?
12. What is the combined volume of three cubes that each have an edge length of 2?
13. What is 25% of one-sixth of 60?
14. One regular tetrahedron fits exactly face-to-face on another. How many vertices does the resulting figure have?
15. Express three-fifths plus nine-tenths as a percent.
16. What is the radius of a circle with circumference  $54\pi$ ?
17. What is the product of first 4 prime numbers?
18. What is the sum of negative 13, negative 37, negative 27, and positive 40?
19. What is the product of 29 and 50?
20. A card is drawn from a standard deck, and a die is tossed. What is the probability of getting a red card and a prime number?