



Challengers #16
8th grade Math
Mrs. Magnuson

Name:
Date:
Period:

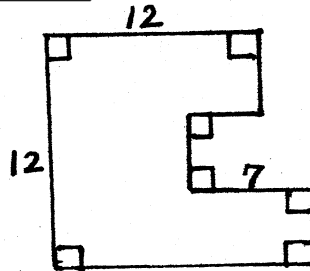
You must show any work that CAN be shown (no matter how easy) to receive credit for a problem.

1. (2 pts)

3-	1-	4-	2-	3
				10×
8+	5	2-		
	2÷	2÷	12+	

See puzzle

2. Find the perimeter of the figure at the right.

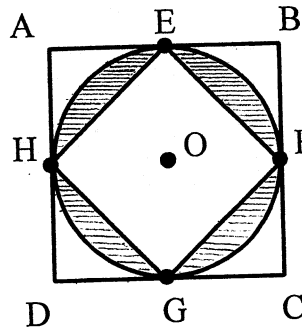


3. If $a \Delta b = (a \cdot b) \div (a \div b)$, then find the value of $12 \Delta 4$ in simplest form.

4. The sum of the first three counting numbers is _____ more than the sum of their reciprocals.

5. Mr. Felding traveled 4 hours averaging 60 mph to reach his destination. Had he averaged 40 mph it would have taken him an additional _____ hours traveling time.

6. Circle O is inscribed in square ABCD. E, F, G, and H are midpoints of the sides of square ABCD. Square EFGH is formed when the midpoints of the sides of square ABCD are joined. The area of the shaded region is $16(\pi - 2)$ sq in. The perimeter of square ABCD is _____ in.



7.



You must have work or a written explanation of why your answer is correct to get the points for these last two.

8. The average of 2014 sixes is equal to the average of 4028 _____

- a.) threes b.) sixes c.) nines d.) twelves

9. If 5 and 9 are the lengths of two sides of a triangle, ___ cannot be the length of the 3rd side.

- a.) 3 b.) 6 c.) 9 d.) 12