

Student Name: _____

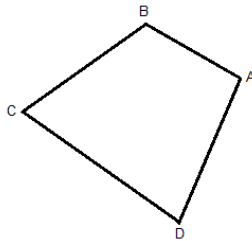
1. What is the value of \square in the equation $8 + 28 = \square \times 4$?

$36 = \square \times 4$, dividing 4 from by sides gives $\square = \boxed{9}$.

2. Following the order of operations, the result of $3 \times 8 - 6 \div 2 = ?$

$24 - 3 = \boxed{21}$.

3. The perimeter of the shape below is 18 with $AB = 3$, $BC = 4$, $AD = 5$. What is the length of CD ?

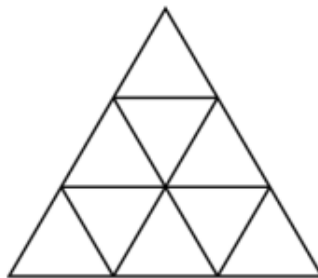


$3 + 4 + 5 + CD = 18 \Rightarrow CD = \boxed{6}$.

4. What is the largest 3-digit number you can make that uses the digits 0, 5, 2 only once?



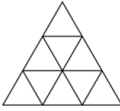
The largest 3-digit number should have the highest number in the hundredth digit, second highest number in the tenth digit and smallest number in the last digit. The answer therefore is $\boxed{520}$.

5. How many triangles are in the picture below? (Hint: The triangles can be different sizes)



We observe the following number of triangles in each size, so the total number is $9 + 3 + 1 = \boxed{13}$.

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	9
	3
	1

6. Grace picks some apples from her orchard to give to her friends Alice and Bob. She gave one more apple to Bob than to Alice. If Alice got 5 apples, how many did Grace pick in total?

Given Alice got 5 apples from Grace and Bob received one more apple than Alice, so Bob got 6 apples. Therefore, Grace picked $5 + 6 = \boxed{11}$ apples in total.

7. Andrea spent \$23 on strawberry and watermelon candies. She bought 4 strawberry candies which cost \$2 each. Given the watermelon candies cost \$3 each, how many watermelon candies did she buy?

Andrea bought 4 strawberry candies which cost \$2 each, so in total, Andrea bought \$8 Strawberry candies. Given Andrea spent \$23 on both strawberry and watermelon candies, she bought $\$23 - \$8 = \$15$ watermelon candies in total. If watermelon candies cost \$3 each, then Andrea bought $\$15 / \$3 = \boxed{5}$ watermelon candies.

8. Consider the following game of tic-tac-toe on a 4x4 grid. The objective of the game is to place 3 X's (or O's) in a row: horizontally, vertically or diagonally. If it is X's turn to place, how many ways can he or she place the “X” to win immediately?

		O	
	X	O	O
	X	X	

Shown as below, the “X” can be placed in any of the $\boxed{6}$ grey boxes to result an immediate win.

X	X	O	
	X	O	O
X	X	X	X
	X		X