Give the interior and exterior angle measure for each polygon.

1) Octagon	2) Undecagon	3) 16-gon	4) 28-gon
Int. ∠s: $(8 - 2)180°$	Int. ∠s: $(11 - 2)180°$	Int. ∠s: $(16 - 2)180°$	Int. ∠s: $(28 - 2)180°$
$= (6)180°$	$= (9)180°$	$= (14)180°$	$= (26)180°$
$= 1{,}080°$	$= 1{,}620°$	$= 2{,}520°$	$= 4{,}680°$
Ext. ∠s: $360°$	Ext. ∠s: $360°$	Ext. ∠s: $360°$	Ext. ∠s: $360°$

Give the number of diagonals in each polygon.

5) Octagon	6) Undecagon	7) 16-gon	8) 28-gon
$\frac{1}{2}(8)(8-3)$	$\frac{1}{2}(11)(11-3)$	$\frac{1}{2}(16)(16-3)$	$\frac{1}{2}(28)(28-3)$
$(4)(5)$	$(5.5)(8)$	$(8)(13)$	$(14)(25)$
20 diagonals	44 diagonals	104 diagonals	350 diagonals

Would you calculate perimeter, area, or volume in each instance below?

9) Distance around Mountain View High School.
            PERIMETER

10) Amount of wall paper for you new kitchen.
            AREA

11) Amount of fencing to enclose your yard.
            PERIMETER

12) Amount of paint to cover the walls in your garage.
            AREA

13) Amount of gasoline to top off you gas tank.
            VOLUME

14) Amount of water you new hot tub will hold.
            VOLUME

Complete the pattern in by filling in the blank with the number that best fits.

15) 2, 4, 6, 8, <u>10</u>   16) 5, 3, 1, -1, <u>-3</u>   17) -3, 1, 5, 9, <u>13</u>   18) 1, 4, 9, 16, <u>25</u>   19) 1, 3, 4, 7, <u>11</u>

Sam is placing paintings at equal intervals along the wall of a hall in a museum. Given the coordinates of two of

A	B	C	D	E	F	G

these paintings, state the location of the others.

20) A = 5, B = 15   **15 − 5 = 10**

C = 25, D = 35, E = 45, F = 55
G = 65

21) B = 20, C = 28   **28 − 20 = 8**

A = 12, D = 36, E = 44, F = 52, G = 60

22) A = 12, D = 54   **54 − 12 = 42; 42 ÷ 3 = 14**

B = 26, C = 40, E = 68, F = 82
G = 96

23) C = 31, G = 83   **83 − 31= 52; 52 ÷ 4 = 13**

A = 5, B = 18, D = 44, E = 57, F = 70