

## GEOMETRY (SECTION 2.1)

7.  $1, 4, 9, 16, 25, \dots$

Perfect squares  $\rightarrow$   $36, 49$

9.  $1, \frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \dots$

Multiply by  $\frac{1}{2} \rightarrow$   $\frac{1}{16}, \frac{1}{32}$

11.  $15, 12, 9, 6, \dots$

Subtract 3  $\rightarrow$   $3, 0$

13. J, F, M, A, M

The first letter of each month  $\rightarrow$   $J, J$

21. Purple =  $1, 4, 7, \dots$

Red =  $2, 5, 8, \dots$

Blue =  $3, 6, 9, \dots$

$Blue$

23.  $Blue$

25.  $1 \quad | \quad 1 \quad = \quad 1 \quad 1^2$

$2 \quad | \quad 1 + 3 \quad = \quad 4 \quad 2^2$

$3 \quad | \quad 1 + 3 + 5 \quad = \quad 9 \quad 3^2$

$4 \quad | \quad 1 + 3 + 5 + 7 \quad = \quad 16 \quad 4^2$

$5 \quad | \quad 1 + 3 + 5 + 7 + 9 \quad = \quad 25 \quad 5^2$

$100^2 = 10,000$

27.  $1 + 3 = 4$

$3 + 5 = 8$

$1 + 5 = 6$

$3 + 7 = 10$

The sum of two odd numbers is always even.

29.  $2 \cdot 4 = 8$

$4 \cdot 4 = 16$

$6 \cdot 4 = 24$

The product of 2 even numbers is always even.

31. 1 mile

33.  $\angle 1$  and  $\angle 2$  are both  $90^\circ$

35.  $-2 + -3 = -5$

37.  $-2 - (-3) = 1$

39. 1, 2, 5, 6, 9, ...

Add 1, Add 3 ...  $\rightarrow$  10, 13

41. 2, 6, 7, 21, 22, 66, 67

Multiply by 3, Add 1  $\rightarrow$  201, 202

43.  $0, \frac{1}{2}, \frac{3}{4}, \frac{7}{8}, \frac{15}{16}, \dots$

Add  $\frac{1}{2}, \frac{1}{4}, \frac{1}{8} \rightarrow \frac{31}{32}, \frac{63}{64}$

45.  $1111 \times 1111 = 123454321$