Name: _____

F.BF.B.6: Series 1

1 Find the value of $\sum_{n=1}^{5} 2n$.

2 Evaluate $\sum_{k=2}^{5} 4k$

3 Find the value of $\sum_{k=2}^{4} (2k-6)$.

4 Evaluate: $\sum_{k=1}^{3} (2k-1)$

5 Find the value of $\sum_{n=1}^{4} (3n-2)$.

6 Evaluate $\sum_{k=3}^{7} (3k+2)$

7 Evaluate: $\sum_{x=1}^{3} (2x+1)$

8 Evaluate: $\sum_{k=0}^{4} (3k-5)$

9 What is the value of $\sum_{n=1}^{5} (-2n+100)$?

1) 70
2) 130
3) 470
4) 530

10 Find the value of $\sum_{x=2}^{4} 3(x+1)$

11 Evaluate: $2\sum_{n=1}^{5} (2n-1)$

12 Evaluate: $\sum_{k=0}^{3} \frac{k}{2}$

13 What is the value of $3\sum_{n=2}^{6} \frac{n}{2}$?

1) 10
2) 13
3) 30
4) 60

14 Evaluate: $\sum_{k=3}^{6} \frac{2k+1}{2}$

15 The projected total annual profits, in dollars, for the Nutyme Clothing Company from 2002 to 2004 can be approximated by the model $\sum_{n=0}^{2} (13,567n+294)$, where n is the year and $n = 0$ represents 2002. Use this model to find the company's projected total annual profits, in dollars, for the period 2002 to 2004.

F.BF.B.6: Series 1
Answer Section

1 ANS:
30

REF: 069903siii
2 ANS:
56

REF: 069002siii
3 ANS:
0

REF: 088404siii
4 ANS:
9

REF: 089307siii
5 ANS:
22

REF: 019605siii
6 ANS:
85

REF: 089611siii
7 ANS:
15

REF: 060301siii
8 ANS:
5

REF: 080302siii
9 ANS: 3

$$s_n = \frac{n(a_1 + a_n)}{2}$$

$$s_5 = \frac{5(98 + 90)}{2} = 470$$

REF: 010601b
10 ANS:
36

REF: 088707siii

11 ANS:

50. $s_n = \frac{n(a_1 + a_n)}{2}$. $25 \times 2 = 50$.
$s_5 = \frac{5(1+9)}{2} = 25$

REF: 060326b

12 ANS:
3

REF: 060212siii

13 ANS: 3

$s_n = \frac{n(a_1 + a_n)}{2}$. $10 \times 3 = 30$.
$s_5 = \frac{5(1+3)}{2} = 10$

REF: 011003b

14 ANS:
20

REF: 069408siii

15 ANS:

41,583. $s_n = \frac{n(a_1 + a_n)}{2}$.
$s_3 = \frac{3(294 + 27428)}{2} = 41583$

REF: 060421b