

1. Determine the value of the sums.

$$(a) \sum_{k=-35}^{10} (6k - 5)$$

$$(d) \sum_{k=-31}^{48} 2k$$

$$(g) \sum_{k=-25}^{50} (2k - 1)$$

$$(b) \sum_{k=10}^{32} (5 - 2k)$$

$$(e) \sum_{k=10}^{100} k$$

$$(h) \sum_{k=34}^{94} (2k - 1)$$

$$(c) \sum_{k=29}^{105} (2k - 1)$$

$$(f) \sum_{k=-210}^{1003} k$$

$$(i) \sum_{k=21}^{57} 2k$$

2. Represent each sum using summation notation and determine the value of the sum.

(a) Sum of the first two-hundred natural numbers

(b) Sum of the consecutive natural numbers from 682 to 1057, inclusive

(c) Sum of the consecutive *even* natural numbers between 240 and 1,300, inclusive

(d) Sum of the consecutive *even* integers between – 2504 and 480, inclusive

(e) Sum of the consecutive *odd* natural numbers between 1 and 1091, inclusive

(f) Sum of the consecutive *odd* natural numbers from 157 to 315, inclusive

(g) Sum of the consecutive integers from 253 to 426, inclusive

(h) Sum of the consecutive integers from – 863 to 9107, inclusive

(i) Sum of the consecutive *odd* integers from – 101 to 2001, inclusive

(j) Sum of the consecutive *even* integers from – 2018 to 3000, inclusive

(k)  $4 + 11 + 18 + 25 + \dots + 249$

(l)  $1 + 7 + 13 + 19 + \dots + 241$

(m)  $5 + 7 + 9 + 11 + \dots + 521$

(n)  $5 + 15 + 25 + \dots + 3,525$

(o)  $7 + 18 + 29 + 40 + \dots + 1118$

(p)  $7 + 16 + 25 + 34 + \dots + 1,834$

(q)  $9 + 16 + 23 + 30 + \dots + 2,123$

(r)  $11 + 17 + 23 + 29 + \dots + 1,919$

(s)  $13 + 21 + 29 + 37 + \dots + 2,469$