

## EXERCISES

1. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(2)$ .
2. Let  $f(x) = 2x^2 - 7x + 1$ . Find  $f(-1)$ .
3. Let  $f(x) = x^3 - 4x^2 + 6x - 8$ . Find  $f(3)$ .
4. Let  $f(x) = x^2 + 1$ . Find  $f(x+1)$ .
5. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1)$ .
6. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x-1)$ .
7. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(2x)$ .
8. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x/2)$ .
9. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(2x+1)$ .
10. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x/2+1)$ .
11. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x)$ .
12. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x)$ .
13. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+2)$ .
14. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+2)$ .
15. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+3)$ .
16. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+3)$ .
17. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+5)$ .
18. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+5)$ .
19. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+7)$ .
20. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+7)$ .
21. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+9)$ .
22. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+9)$ .
23. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+11)$ .
24. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+11)$ .
25. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+13)$ .
26. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+13)$ .
27. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+15)$ .
28. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+15)$ .
29. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+17)$ .
30. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+17)$ .
31. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+19)$ .
32. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+19)$ .
33. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+21)$ .
34. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+21)$ .
35. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+23)$ .
36. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+23)$ .
37. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+25)$ .
38. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+25)$ .
39. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+27)$ .
40. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+27)$ .
41. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+29)$ .
42. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+29)$ .
43. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+31)$ .
44. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+31)$ .
45. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+33)$ .
46. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+33)$ .
47. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+35)$ .
48. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+35)$ .
49. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+37)$ .
50. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+37)$ .
51. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+39)$ .
52. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+39)$ .
53. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+41)$ .
54. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+41)$ .
55. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+43)$ .
56. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+43)$ .
57. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+45)$ .
58. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+45)$ .
59. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+47)$ .
60. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+47)$ .
61. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+49)$ .
62. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+49)$ .
63. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+51)$ .
64. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+51)$ .
65. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+53)$ .
66. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+53)$ .
67. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+55)$ .
68. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+55)$ .
69. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+57)$ .
70. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+57)$ .
71. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+59)$ .
72. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+59)$ .
73. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+61)$ .
74. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+61)$ .
75. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+63)$ .
76. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+63)$ .
77. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+65)$ .
78. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+65)$ .
79. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+67)$ .
80. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+67)$ .
81. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+69)$ .
82. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+69)$ .
83. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+71)$ .
84. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+71)$ .
85. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+73)$ .
86. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+73)$ .
87. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+75)$ .
88. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+75)$ .
89. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+77)$ .
90. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+77)$ .
91. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+79)$ .
92. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+79)$ .
93. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+81)$ .
94. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+81)$ .
95. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+83)$ .
96. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+83)$ .
97. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+85)$ .
98. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+85)$ .
99. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) - f(x+87)$ .
100. Let  $f(x) = x^2 + 3x - 5$ . Find  $f(x+1) + f(x+87)$ .

Exercise	Answer
1	7
2	10
3	2
4	$x^2 + 5x + 2$
5	$x^2 + 6x - 4$
6	$x^2 + 2x - 6$
7	$4x^2 + 12x - 9$
8	$\frac{1}{4}x^2 + \frac{3}{2}x - \frac{21}{4}$
9	$x^2 + 7x - 10$
10	$\frac{1}{4}x^2 + \frac{5}{2}x - \frac{19}{4}$
11	$2x + 4$
12	$2x^2 + 6x - 4$
13	$-2x - 6$
14	$2x^2 + 10x - 4$
15	$-2x - 10$
16	$2x^2 + 14x - 4$
17	$-2x - 14$
18	$2x^2 + 18x - 4$
19	$-2x - 18$
20	$2x^2 + 22x - 4$
21	$-2x - 22$
22	$2x^2 + 26x - 4$
23	$-2x - 26$
24	$2x^2 + 30x - 4$
25	$-2x - 30$
26	$2x^2 + 34x - 4$
27	$-2x - 34$
28	$2x^2 + 38x - 4$
29	$-2x - 38$
30	$2x^2 + 42x - 4$
31	$-2x - 42$
32	$2x^2 + 46x - 4$
33	$-2x - 46$
34	$2x^2 + 50x - 4$
35	$-2x - 50$
36	$2x^2 + 54x - 4$
37	$-2x - 54$
38	$2x^2 + 58x - 4$
39	$-2x - 58$
40	$2x^2 + 62x - 4$
41	$-2x - 62$
42	$2x^2 + 66x - 4$
43	$-2x - 66$
44	$2x^2 + 70x - 4$
45	$-2x - 70$
46	$2x^2 + 74x - 4$
47	$-2x - 74$
48	$2x^2 + 78x - 4$
49	$-2x - 78$
50	$2x^2 + 82x - 4$
51	$-2x - 82$
52	$2x^2 + 86x - 4$
53	$-2x - 86$
54	$2x^2 + 90x - 4$
55	$-2x - 90$
56	$2x^2 + 94x - 4$
57	$-2x - 94$
58	$2x^2 + 98x - 4$
59	$-2x - 98$
60	$2x^2 + 102x - 4$
61	$-2x - 102$
62	$2x^2 + 106x - 4$
63	$-2x - 106$
64	$2x^2 + 110x - 4$
65	$-2x - 110$
66	$2x^2 + 114x - 4$
67	$-2x - 114$
68	$2x^2 + 118x - 4$
69	$-2x - 118$
70	$2x^2 + 122x - 4$
71	$-2x - 122$
72	$2x^2 + 126x - 4$
73	$-2x - 126$
74	$2x^2 + 130x - 4$
75	$-2x - 130$
76	$2x^2 + 134x - 4$
77	$-2x - 134$
78	$2x^2 + 138x - 4$
79	$-2x - 138$
80	$2x^2 + 142x - 4$
81	$-2x - 142$
82	$2x^2 + 146x - 4$
83	$-2x - 146$
84	$2x^2 + 150x - 4$
85	$-2x - 150$
86	$2x^2 + 154x - 4$
87	$-2x - 154$
88	$2x^2 + 158x - 4$
89	$-2x - 158$
90	$2x^2 + 162x - 4$
91	$-2x - 162$
92	$2x^2 + 166x - 4$
93	$-2x - 166$
94	$2x^2 + 170x - 4$
95	$-2x - 170$
96	$2x^2 + 174x - 4$
97	$-2x - 174$
98	$2x^2 + 178x - 4$
99	$-2x - 178$
100	$2x^2 + 182x - 4$