

Section 1.2 Answers to the Assigned Even Problems

2. a) 3, 5, 7, 9, 11, 13, 15, 17

b) 20 triangles

c) $2n + 1$ toothpicks

4. 6, 10, 14, $4n + 2$

6. 4, 9, 14, $5n - 1$

8. $[n(3n - 1)]/2$

10. $n(3n - 2)$

12. a) iii

b) ii

c) i

d) iii

14.

16. a) 19, 22, 37, $3n + 1$

b) 35, 48, 143, $n^2 - 1$

c) 32, 64, 2048, 2^{n-1}

d) $-6/7$, $-7/8$, $-12/13$, $-n/(n+1)$

18. 15 paths

20. 14 paths

22. a) 19, 31, 50

b) 6, 13, 33

c) 8, 11, 30

d) 13, 23, 36, 59

24. 35 triangles

26. 19 squares, $2n - 1$

28. 52 squares, $5n + 2$

30. 44 cubes, $4n + 4$

32. 1330 cubes

36. It cannot be done.

42.