

Key:

1. 14

2. 3 miles

3. 6 inches

4. 740ft

5. $81/16$

6. 5

7. $1/3$

8. 1200π ft

9. 15: The pattern is of triangular numbers. 0 blocks have 1 possible height (0in). 1 block has 3 possible heights. 2 blocks have 6, etc. n blocks have $\binom{n+2}{n}$ possible heights.

10. 98