

**Answers to: II. Roofing (slopes, angles, triangles)**

- A. Left: 1 Right: -1
- B. The roof has the same inclination on both sides. One side is increasing in height while the other is decreasing in height as you move across the roof.
- C. 45 degrees for both angles
- D. Because the roof has the same inclination on both sides.
- E. The tangent of the angle of inclination of the line (roof) = the absolute value of the slope of these lines.
- F. C(0,10)
- G.  $y = \pm x + 10$
- H. Yes, because the slopes of the lines are negative reciprocals. However, if we move point C, they may not be perpendicular.
- I. Similar by aaa
- J. 2, 8, 18, 32, 50 respectively
- K.  $1/4, 4/9, 9/16, 16/25$  respectively
- L.  $a_n = \left(\frac{n}{n+1}\right)^2$
- M. 2, 4, 6, 8, 10 respectively
- N.  $1/2, 2/3, 3/4, 4/5$  respectively
- O.  $a_n = \left(\frac{n}{n+1}\right)$
- P. 2, 4, 6, 8, 10 respectively
- Q.  $1/2, 2/3, 3/4, 4/5$  respectively
- R.  $a_n = \left(\frac{n}{n+1}\right)$

S. Formula from L = product of formula from O and formula from R.

T. -10, -8, -6, -4, -2, 0 respectively  
common difference = 2

U. 0, 2, 4, 6, 8, 10 respectively  
common difference = 2

V. 2:2 or 1:1