Third day of Christmas walkthrough

Initial diagram:

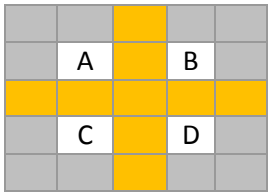
			Cherry	
Plum				Apple
Apple		Pear		Pear
	Cherry		Pear	

Houses made from 2 squares are all 2x1 giving the following number of options:

Horizontal = 8, Vertical = 7 so

E1 is 15

Houses made from 3 squares can be 3x1 or an L shape, with 4 different orientations,

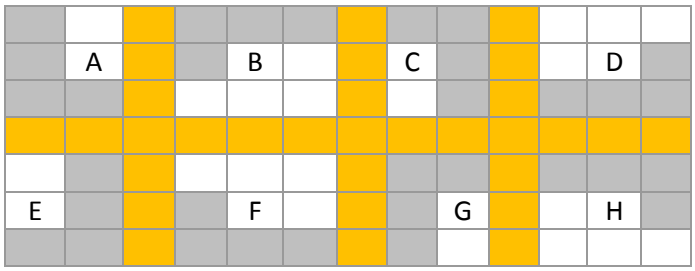


giving the following number of options:

Horizontal 3x1 = 5, Vertical 3x1 = 4, A = 5, B = 6, C = 5, D=4 so

E5 is 29

Houses from 4 squares can be 2x2 squares, 4x1 or a right or left handed L, each with 4 different orientations.



Giving the following number of options:

Square = 3, 4x1 = 3, A = 2, B = 2, C = 3, D = 2, E = 2, F = 3, G = 2, H = 3

so

A5 = 25

The likely contenders for 1 are C2 and C3.

With C2 as part of the house the number of options is

Square = 1, 4x1 = 3, A = 1, B = 2, C = 1, D = 2, E = 2, F = 1, G = 2, H = 1 so 16 options

With C3 as part of the house the number of options is

Square = 2, 4x1 = 2, A = 2, B = 1, C = 1, D = 2, E = 1, F = 2, G = 0, H = 1 so 14 options

so

C2 is 1

Initial diagram with 1 added:

			Cherry	
Plum				Apple
	1			
Apple		Pear		Pear
	Cherry		Pear	

The likely contenders for 2 are C3 and B2.

With both C2 and C3 as part of the house the number of options is

Square = 1, 4x1 = 2, A = 1, B = 1, C = 0, D = 2, E = 1, F = 1, G = 0, H = 1 so 10 options

With both C2 and B2 as part of the house the number of options is

Square = 1, 4x1 = 1, A = 1, B = 1, C = 1, D = 0, E = 1, F = 1, G = 2, H = 0 so 9 options

so

C3 is 2

Then we have already worked out that

A1 is 10

Now anything off the 3rd row is restricted so

C4 is 3

so

A2, A3 and B3 are X

The 4x1 options no longer apply so

C1 and C5 are X

The door cannot be by the Cherries so

D2 and B4 are X

or by the plum so

B2 is X and D4 is Door

AOD 4/12/16