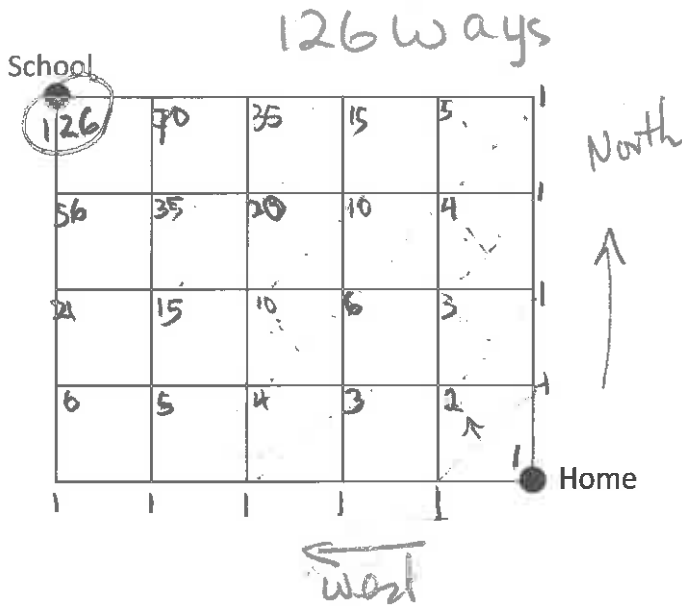


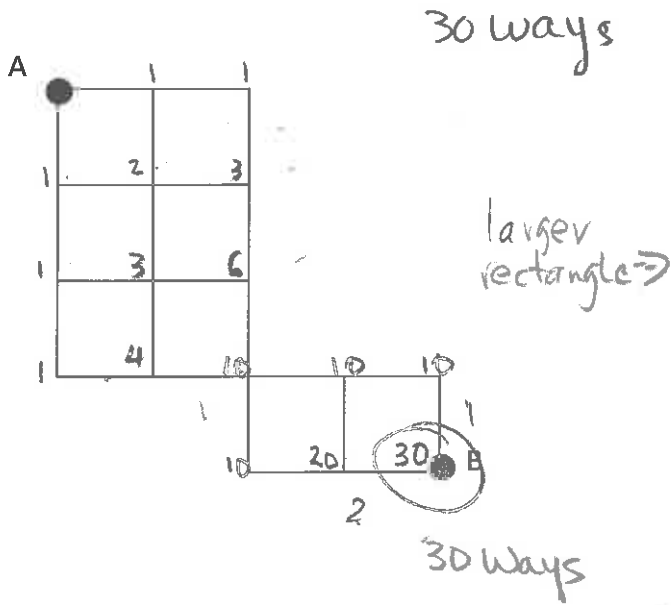
Example 6

Using the map below, in how many ways can Jackie go from home to school if she is only allowed to travel North or West?



$$\frac{N+W!}{N!W!} = \frac{9!}{4!5!}$$

Example 7 How many direct paths are there from A to B?



$$\frac{D+R!}{D!R!} = \frac{2+3!}{3!2!} = \frac{5!}{3!2!}$$

$$\frac{5!}{3!2!} = 10$$

Smaller rectangles

$$\frac{D+R!}{D!R!} = \frac{1+2}{1!2!}$$

rectangle = 2 rectangles

$$\frac{3}{1!2!} = 3$$

TOTAL = 10 x 3 = 30 ways