

When Tanvir climbed the Tajindong mountain, on his way to the top he saw it was raining 11 times. At Tajindong, on a rainy day, it rains either in the morning or in the afternoon; but it never rains twice in the same day. On his way, Tanvir spent 16 mornings and 13 afternoons without rain. How many days did it take for Tanvir to climb the Tajindong mountain in total?

Solution:

Let x – is amount of mornings when was raining;

and y – is amount of afternoons when was raining;

Now I am writing system of equations for calculation meanings of x and y .

So $x + y = 11$ this equation shows how many days it was raining. And equation $16 - x = 13 - y$ shows how many days were without raining.

$$x + y = 11;$$

$$16 - x = 13 - y;$$

Now I solve this system of equations:

$$x = 11 - y;$$

$$16 - (11 - y) = 13 - y;$$

Then

$$16 - 11 + y = 13 - y;$$

$$y + y = 13 - 16 + 11;$$

$$2 * y = 8;$$

$$\mathbf{y = 4;}$$

$$\text{Then } \mathbf{x = 11 - 4 = 7;}$$

And $16 - 7 = 13 - 4 = 9$. So it means that 9 days was without raining.

Now I calculate amount of days which it took for Tanvir to climb the Tajindong. So as you know it was raining 11 days. And it was 9 days without raining.

That's why all trip continued $11 + 9 = 20$ days.

Answer: all trip continued **20 days**.