"Uber Car" and "Pathao Car" are the popular car based ride sharing app. They calculate cost based on number of passengers and distance using the following formula:

**Uber:** Cost = n\*d\*18\*time\_factor; where n = number of passengers and d = distance

if it is extremely peak hour, then time\_factor = 1.8

if it is moderately peak hour, then time\_factor = 1.2

if it is off peak hour, then time\_factor = 0.9

**Pathao:** Cost = n\*d\*20\*time\_factor;

if it is extremely peak hour, then time\_factor = 1.5

if it is moderately peak hour, then time\_factor = 1.15

if it is off peak hour, then time\_factor = 0.9

"Uber Moto" and "Pathao" are the popular bike based ride sharing app. They calculate cost based on the distance to destination using the following formula:

**Uber:** Cost = 25 + d\*12

**Pathao:** Cost = 30 + d\*11

The user will input the destination distance, number of passengers and an input t. (t=1, 2, 3 for extremely peak, moderately peak and off peak hour respectively.)

You need to output the cost for each apps.