



# MATHS

## BOOKS - MODERN PUBLICATION

### MATHEMATICAL MODELLING

#### Example

1. The angle of elevation of the top of a tower from a point O, on the ground, which is 600 m

away from the foot of the tower, is  $45^\circ$ . Obtain the height of the tower.



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2. A farm uses at least 800 kg of special feed daily. The special feed is a mixture of corn and soyabean with the following compositions :

following compositions :

Material	Nutrients present per kg protein	Nutrients present per kg Fibre	Cost per kg
Corn	·09	·02	Rs. 10
Soyabean	·60	·06	Rs. 20

The

dietary requirements of the special food

stipulate at least 30% protein and at most 5% fibre. Determine the daily minimum cost of the food mix.



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3. The population control unit wants to find :  
“How many people will be in a certain country after 10 years.”



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