5. $X = 256 - 0.01P^2$.

Find the expression for quantity of demand and supply

5a. Elasticity of demand $= \frac{\Delta X}{\Delta P}$

$E_d = \frac{dx}{dP} = -0.02P$

$= 0.02P$

5b. Evaluate E_d for $P = 80$ identify the typ of elasticity

$E_d = 0.02P$

But $P = 80$

0.02×80

$= 1.6$

It is elastic demand. Since elasticity of demand value is greator than 1.

Prediction! at price of $80 demand will increase by 1.6.

20 Thursday
Day (051/315)
Wk-08

C. Evaluate Ed. for P = 100

Ed = 0.02.

P = 100

= 0.02 × 100

= 2.

Elasticity is elastic since the value is greater than 1

Prediction; At a price of $100 demand will increase by 2.