

## Demand Schedule

Price	2	3	4	5	6	7	8	9
Quantity	9	8	7	6	5	4	3	2
Total Revenue	18	24	28	30	30	28	24	1

P goes from 4 to 5 and Q from 7 to 6

$$\frac{\frac{6-7}{(7+6)/2}}{\frac{5-4}{(4+5)/2}} = \frac{\frac{1}{6.5}}{\frac{1}{4.5}} = \frac{4.5}{6.5} = .69$$

P goes from 5 to 6 and Q from 6 to 5

$$\frac{\frac{5-6}{(6+5)/2}}{\frac{6-5}{(5+6)/2}} = \frac{\frac{1}{5.5}}{\frac{1}{5.5}} = \frac{5.5}{5.5} = 1$$

P goes from 6 to 7 and Q from 5 to 4

$$\frac{\frac{4-5}{(5+4)/2}}{\frac{7-6}{(6+7)/2}} = \frac{\frac{1}{4.5}}{\frac{1}{6.5}} = \frac{6.5}{4.5} = 1.44$$

Note: A down sloping demand curve is yields a negative  $E_D$ . Its sign is often ignored.

See Calculating Price Elasticity using [calculus](#) and [examples](#)

Relative Change in Quantity	Terminology	$E_D$ Parameters
None, will pay anything, numerator is zero.	Perfectly Inelastic	$E_D = 0$
Small	Inelastic	$0 < E_D < 1$
Q demanded and P change same percentage	Unitary Elasticity	$E_D = 1$
Large	Elastic	$1 < E_D < \infty$
Infinitely Large, price doesn't change, denominator is zero	Perfectly Elastic	$E_D$ is undefined, can't divide by zero.

A. [Elasticity II](#) provides practice measuring  $E_D$ . Samuel L. Baker, Ph.D. US Carolina

B. [Approx. PED of Various Products \(U.S.\)](#)

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Unit 3 Review High elasticity has substantial effect, inelastic demand has little quantity movement.