



ECONOMICS

BOOKS - SANDEEP GARG ECONOMICS (HINGLISH)

ELASTICITY OF DEMAND

Example

1. When price is ₹ per unit, demand for a commodity is 100 units. As the price falls to ₹ 8 per unit , demand expands to 150 units. Calculate elasticity of demands.



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2. when price of sugar is ₹ 5 per Kg, its demand is 50 Kg.
when price rises by ₹ 5 per kg, its demand falls by 10 Kg.
Calculate the elasticity of demand.

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3. The demand for a good falls to 240 units in response to a rise in price by ₹ 2. If the original demand was 300 units at the price of ₹ 20, calculate price elasticity of demand.

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4. The market demand for a good at ₹ 4 per unit is 100 units.
Due to an increase in price, the market demand falls to 75 units.
Find out the new price, elasticity of demand is (-)1.



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5. When the price of good X is ₹ 5, the consumer buys 100 units of good X. At what price would he willing to purchase 140 units of good X ? The price elasticity of demand for good X is 2.



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6. A consumer buys 80 units of a good at a price of ₹5 per unit. Suppose, the price elasticity of demand is (-)2. At what price will he buy 64 units ?



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7. The demand for a good at ₹10 per units is 40 units. Price falls by ₹ 5. if price elasticity of demand is (-)3, calculate the new quantity demanded.



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8. Price elasticity of demand for a product is 'unity'. A household buys 25 units of this product at the price of ₹ 5 per unit. If the price of product rises by ₹ 1, how much quantity of the product will the household buy ?



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9. When the price of a commodity falls by ₹ 2 per unit , its quantity demanded increases by 10 units . Its price elasticity

of demand is (-) 1. Calculate its demanded at the price before change was ₹ 10 per unit.



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10. The initial demand for a commodity is 80 units, the demand falls by 4 units due to rise in price by ₹ 10 . If price elasticity of demand is 1.5 calculate the price before change in demand.



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11. When price of a commodity falls by 80 % , the quantity demanded of it increases by 100 % . Find out its price elasticity of demand.



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12. when price of a commodity gets doubled, its quantity demanded reduced to half . Calculate the coefficient of price elasticity of demand .

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13. A 5 % fall in the price of x leads to 10 % rise in the demand for x . A 20 % rise in the price of y leads to 6 % fall in the demand for y. Calculate the price elasticities of demand of x and y. out of x and y, which commodity is more elastic ?

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14. A consumer buys 20 units of a good at ₹ 10 per unit. When its price falls by 10%, its demand rises to 22 units. Find out the price elasticity of demand.

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15. The quantity demanded of a commodity at a price of ₹ 8 per unit is 600 units. Its price falls by 25 per cent and the quantity demanded rises by 120 units. Calculate the price elasticity of demand . Is its demand elastic ? Give reason for your answer.

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16. Calculate the price elasticity of demand for a commodity when its price increase by 25% and quantity demanded falls from 150 units to units.

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17. The price of commodity is ₹ 15 per unit and its quantity demanded is 500 units. Its quantity demanded rises by 80 units as a result of fall in its price by 20 per cent. Calculate its price elasticity of demand. Is its demand inelastic ? Give reason for your answer.

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18. When the price of a commodity is ₹ 20 per unit, its quantity demanded units. When its price rises by ₹ 5 per unit, its quantity demanded falls by 20 per cent. Calculate its price elasticity of demand. Is its demand elastic? Give reasons for answer.

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19. when price of a good falls from ₹ 5 to ₹ 3 per unit, its demand rises by 40 % . Calculate its price elasticity of demand.

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20. Calculate price elasticity of demand:

Price (₹)	Total Expenditure (₹)
5	500
6	420

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21. A consumer spends ₹ 80 on a commodity when its price is ₹ 1 per unit and spends ₹ 96 when its price is ₹ 2 per unit. Calculate price elasticity of demand for the commodity by the percentage method ?

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22. A dentist was Charging ₹ 300 for a standard cleaning job and it used to generate total revenue equal to ₹ 30,000 per

month. She has , since las month , increased the price of dental cleaning to ₹ 350. As a result, fewer customers are now coming for dental cleaning, but the total revenue is now ₹ 33,250 .from this, what can we conclude about the elasticity of demand for her dental service ?



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23. With rise in price from ₹ 8 to ₹ 14 , total expenditure on the commodity rises by 40% and becomes ₹1,120. Calculate price elasticity of demand. Also, indicate whether demand. Also, indicate whether demand is elastic or inelastic.



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24. The price elasticity of demand for good X is known to be twice that of good Y. Price of X falls by 5 % while of good Y rises by 5% . What is the percentage change in the quantities demanded of X and Y ?

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25. The price elasticities of demand for goods X and Y are known to be 1 and 2 respectively. Price of X rises by 5% while that of good Y falls by 5%. What are the percentage changes in the quantities demanded of X and Y ?

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26. The demand for goods X and Y have equal price elasticity. The demand of X rises from 100 units to 250 units due to a 20 per cent fall in its price. Calculate the percentage rise in demand of Y, if its price falls by 8 per cent.

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27. The price elasticity of demand of good X is half the price elasticity of demand of good Y. A 25% rise in the price of good Y reduces its demand from 400 units to 300 units. Calculate percentage rise in demand of good X when its price falls from ₹ 10 to ₹ 8 per unit.

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28. The Percentage change in demand is three times the percentage change in price. If original demand was 30 units at the price of ₹ 7 per unit, then calculate the price elasticity of demand, given price increased by 10% . Indicate whether the demand is elastic or not. Also calculate the new quantity demanded.

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29. In case of commodity 'B' the ratio of change in price (ΔP) to original price (P) is (-) 0.4. if price elasticity of demand is (-) 0.5, calculate the percentage change in quantity demanded.

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30. If ratio of Change in quantity (ΔQ) to original quantity Q is 0.5 and elasticity of demand is (-) 1.25, calculate the percentage change in price.

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31. If $\frac{\Delta Q}{Q} = -0.6$ and price elasticity is (-) 0.75, calculate the percentage change in price. Also Calculate the new expenditure if initial expenditure was ₹500 at the price of ₹20.

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32. The demand function of Commodity 'X' is given as :

$Q_x = 20 - 2P_x$. Calculate its price elasticity of demand when

price falls from ₹ 5 to ₹3.



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33. The demand for commodity 'A' rises by 20% due to fall in price by ₹ 2 from the original price of ₹8.

(i) Calculate elasticity of demand by 'Percentage Method'.

(ii) Whether demand of 'A' is elastic or inelastic ? Give reason for your answer.

(iii) What will be the shape of demand curve of A ?

(iv) If new demand of Commodity 'A' is 84 units , then calculate its original demand.



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34. If the price of X is ₹ 2 and the elasticity of demand is 0.4 , how much will a 10 percent reduction in quantity demanded increase the price ? If the new quantity demanded is 9 units, will the total spending on X rise ? If so, by what percentage ?

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35. when price of a good is ₹ 7 per unit, a consumer buys 12 units. When price falls to ₹ 6 per unit, he spends ₹ 72 on the good. Calculate price elasticity of demand by using the percentage method. Comment on the likely shape of demand curve based on this measure of elasticity.

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36. The demand curve for the commodity is given as $D_x = 20 - 2P$. If slope of the demand curve is (-2), calculate price elasticity of demand for the commodity when the price of the commodity is ₹5 per unit.

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37. The demand curve of a commodity is expressed as $D_x = 40 - 5P$. If slope of the demand curve is given to be (-2), calculate price elasticity of demand for the commodity when demand is 20 units.

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1. Price elasticity of demand for flowers and toys are respectively (-) 0.9 and (-) 0.5. Demand for which one is more elastic and why?

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2. Differentiate between law of demand and price elasticity of demand.

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3. What is the price elasticity of demand for following demand curves, : (i) Straight line demand curve parallel to X - axis, (ii) Straight line demand curve parallel to Y-axis.

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4. State with reasons , whether the following items will have elastic or inelastic demand: (i) Matchbox, (ii) coke , (iii) medicines, (iv) NCERT Textbook, (v) Electricity, (vi) Cigarettes, (vii) Butter for a poor person .

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True And False

1. When quantity demanded of a commodity does not change with change in price. Then coefficient o price elasticity of demand is zero.

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2. A commodity with large number of close substitutes shows high elasticity of demand.

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3. When the percentage increase in demand of a commodity is more than percentage increase in price, then demand curve is steeper.

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4. In case of horizontal straight line demand curve, demand does not change even with change in price.

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5. A flatter demand curve is more elastic than a steeper demand curve at the point of intersection.

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6. In case of perfectly inelastic demand , expenditure on the commodity does not change with change in its price.

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7. if the proportionate change in the price of a commodity is more than the proportionate change in its quantity demand per unit of time , its price elasticity demand is greater than unity.



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8. In measuring price elasticity, price is a dependent variable and quantity is an independent variable



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9. The coefficient of price elasticity of demand is generally negative. However, minus sign is ignored for the sake of convenience.



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10. Commodity with diverse uses has generally less elastic demand.

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11. Demand is more elastic in the long period than in the short period.

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12. Price Elasticity of Demand of two goods A and B is (-) 3 and (-) 4 respectively. Good A has higher elasticity.

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13. Price Elasticity of Demand is infinity in case of horizontal straight line demand curve.

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14. Price Elasticity of Demand is same for the two commodities x and y if slope of their demand curves are same.

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15. price Elasticity of Demand is zero if with 20% increase in expenditure on the commodity, also rises by 20%.

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1. Explain price elasticity of demand



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2. Consider the demand for a good . At price ₹ 4 , the demand for the good is 25 units . Suppose price of the good increases to ₹5 and as a result, the demand for the good falls to 20 units. Calculate the price elasticity.



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3. Suppose the price elasticity of demand for a good is -0.2 if there is a 5% increase in the price of the good, by what

percentage will the demand for the good go down ?



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Revision Exercise

1. If there is no change in demand for commodity 'X' even after rise in its price, then its demand is:

- A. Perfectly Elastic
- B. Perfectly Inelastic
- C. Less Elastic
- D. Highly Elastic

Answer: b



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2. The elasticity of demand for a product will not be higher:
- A. when it is considered a necessity by its buyers.
 - B. When more substitutes for the product are available.
 - C. When it has several uses.
 - D. When it is an expensive commodity.

Answer: a

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3. Demand for a good is less elastic when :

A. Percentage change in price $>$ percentage change in quantity demanded.

B. Percentage Change in quantity demanded $>$ percentage change in price

C. percentage change in price = percentage change in quantity demanded

D. Demand remains same even with change in price.

Answer: a

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4. which of the following will have elastic demand ?

A. Matchbox

B. NCERT textbooks

C. Medicines

D. Air conditioners.

Answer: d

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5. If the price elasticity of demand for a commodity is less than unity, a decrease in price would result in

A. Proportionately less in the quantity demanded.

B. Proportionately more increases in the quantity demanded.

C. Increases in total expenditure on the product.

D. none of these.

Answer: a



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6. Which one of the following statements is incorrect:

- A. Higher numerical value of elasticity indicates larger effect of a price change on the quantity demanded.
- B. Elasticity of demand can vary only between -1 and +1.
- C. The demand curves for all commodities which have unitary elastic demand will be rectangular hyperbola.
- D. Elasticity of demand establishes a quantitative relationship between quantity demanded of a

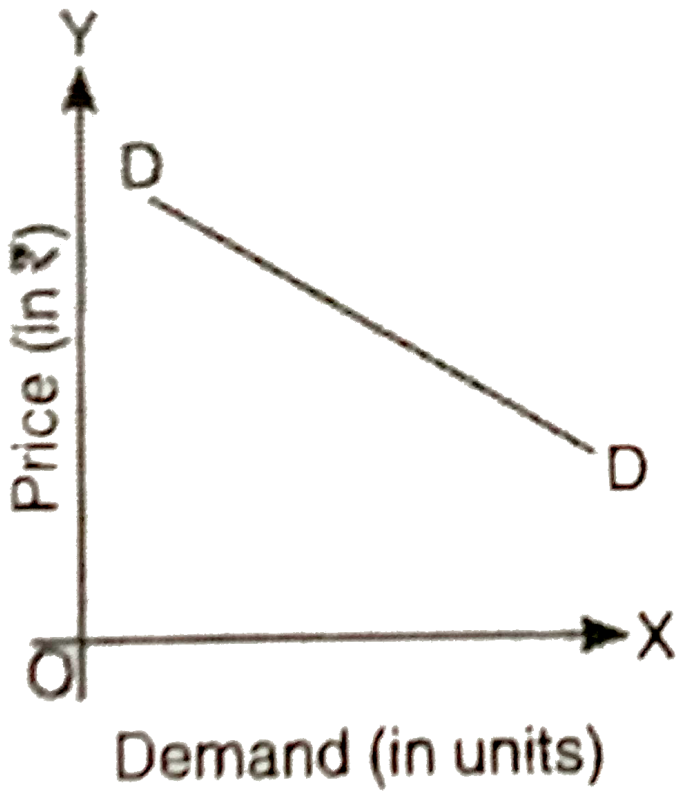
commodity and its price. While other factors remain constant.

Answer: b



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7. the following diagram represents _____ elastic demand for commodity X.



- A. Less
- B. Highly
- C. Unitary
- D. Perfectly

Answer: b

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8. If the percentage increase in the quantity demanded of a commodity is less than the percentage fall in its price, then elasticity of demand is:

A. > 1

B. $= 1$

C. < 1

D. $= 0$

Answer: c

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9. Price elasticity of demand is best defined as :

- A. Change in the tastes of consumers at different prices.
- B. Change in demand when income of the consumer increases.
- C. The rate of response of demand to a change in price.
- D. The rate of response of demand to change in price of related goods.

Answer: c



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10. which of the following influence price elasticity of demand ?

- A. Nature of the commodity
- B. Income Level
- C. Availability of substitutes
- D. All the these.

Answer: d



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11. A negative sign with coefficient of price elasticity of demanded denotes.

- A. Direct relation between price and quantity demanded
- B. Inverse relation between price and quantity demanded
- C. No relation between price and quantity demanded.
- D. none of these.

Answer: b



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12. A 5% fall in the price of X leads to a 10% rise in its demand. In case of Good Y, a 2% rise in price leads to a 6% fall in its demand. In the given case, _____ is more elastic.

- A. X
- B. Y

C. Both X and Y are equally elastic

D. Both X and Y are inelastic

Answer: b

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13. In case of _____ there is an infinite demand at a particular price and demand becomes zero with a slight rise in price.

A. Perfectly inelastic demand

B. Highly elastic demand

C. less elastic demand

D. Perfectly elastic demand.

Answer: d



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14. if a good takes up significant share of consumers' budget, it will be

- A. Less elastic
- B. Highly elastic
- C. Unitary elastic
- D. perfectly elastic

Answer: b



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15. If there is no change in quantity demanded to any change in price, then demand is _____ and demand curve is a _____.

- A. perfectly elastic, horizontal straight line
- B. perfectly elastic, vertical straight line
- C. perfectly inelastic , horizontal straight line.
- D. perfectly inelastic , horizontal straight line

Answer: d

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16. If the demand for a good is made by a rich consumer , its demand is generally.

- A. Less elastic
- B. Highly elastic
- C. Unitary elastic
- D. Perfectly elastic

Answer: a



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17. A firm is currently selling 10,000 units of its product per month. The firm plans to reduce the retail price from ₹ 1 to ₹ 0.90 . From the previous experience, the firm known that the price elasticity of demand for the product is (-) 1.5. Assuming no other changes, the firm can now expect the sales of :

- A. 8,500 units
- B. 10,500 units
- C. 11,000 units
- D. 11,500 units

Answer: d



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18. the demand for meals at a medium- priced restaurant is elastic. If the management of the restaurant is considering raising prices, it can expect a relatively:

- A. proportionately large fall in quantity demanded
- B. No change in quantity demanded

C. Proportionately small fall in quantity demanded

D. infinite change in quantity demanded

Answer: a



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19. With increase in price of burgers by 22% , its demand falls by 25%. This indicates that demand for burgers is:

A. Elastic

B. Inelastic

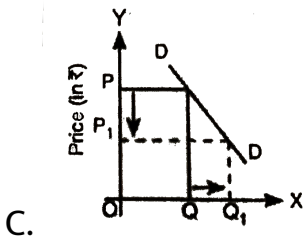
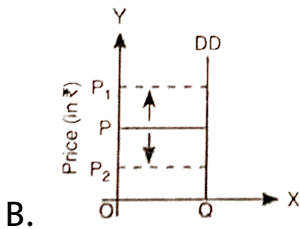
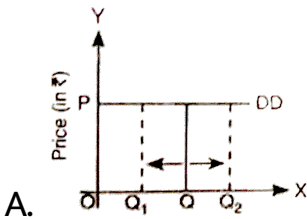
C. Unitary elastic

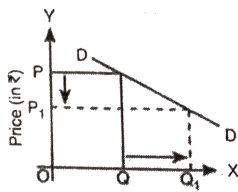
D. Perfectly elastic

Answer: a

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20. Which of the following diagram correctly depicts the situation of Less Demand ?





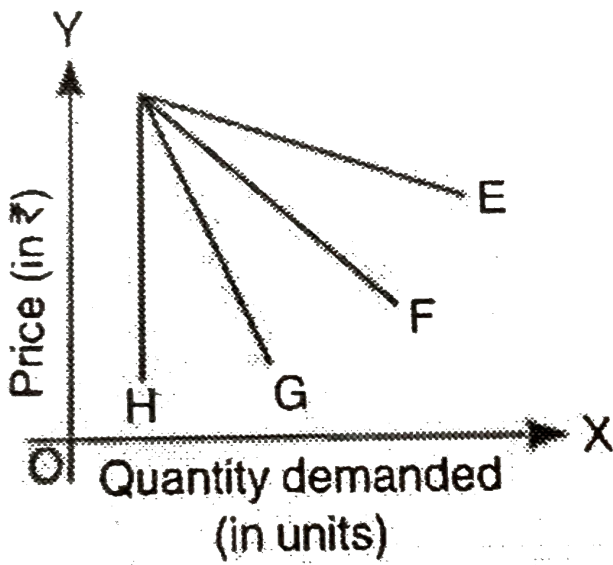
D.

Answer: c



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21. Among the following demand curves, which one is more elastic ?



A. F

B. E

C. G

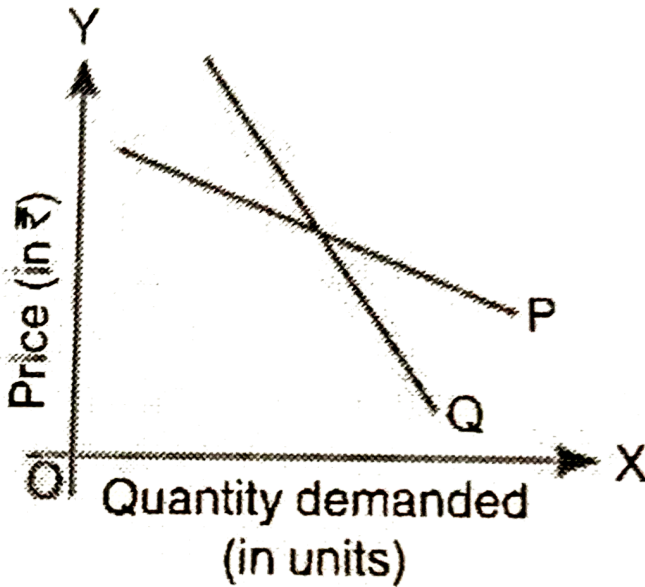
D. H

Answer: b



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22. If a commodity has large number of substitutes, then its demand curve will be:



- A. P
- B. Q
- C. both a and b
- D. Neither a nor b

Answer: a



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23. Price Elasticity of Demand of a good is (-) 3 it shows that:

- A. When price falls by 1% demand rises by 3%
- B. when price rises by 1% demand its falls by 3%
- C. Either a or b
- D. Neither a nor b

Answer: c



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24. The Indian Government imposed heavy taxes on commodity to reduce its consumption by the public such heavy taxes will decrease the demand of the commodity only when:

A. $E_d = 0$

B. $E_d > 1$

C. $E_d < 1$

D. $E_d = 1$

Answer: b



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1. Define price elasticity of demand

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2. Why is price elasticity of demand generally negative ?

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3. Give the formula for measuring price is generally price elasticity of demand according to percentage method.

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4. How is price elasticity related to a horizontal straight line demand curve ?

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5. How is price elasticity related to a vertical straight line demand curve ?

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6. Demand for product X is perfectly inelastic. What will be the change in demand if price falls from ₹ 10 per unit to ₹ 5 per unit ?

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7. Under what condition will the demand curve be parallel to Y-axis ?



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8. What will be the shape of demand curve for a commodity whose expenditure rises due to increase in price when its price elasticity is zero ?



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9. when is the demand of a commodity said to be inelastic ?

OR

Give the meaning of 'inelastic demand'.



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10. what is meant by unitary elastic demand ?

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11. If price elasticity of demand for a product is equal to one ,
what will be the nature of its demand curve ?

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12. What is meant by highly elastic demand ?

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13. State 3 factors which affect price elasticity of demand.



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14. How does the availability of close substitutes is more elastic of demand for a product ?



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15. How is price elasticity of demand affected by the nature of the commodity ?



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16. If two demand curves intersect, then the flatter curve is more elastic.

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17. why is demand for water inelastic ?

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18. when is the demand for a good said to be perfectly inelastic ?

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19. A perfectly elastic price-demand curve is parallel to the X-axis. Why or why not ?

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20. Arrange the following coefficients of price elasticity of demand in ascending order: -0.7, -0.3, -1-1, -0.8.

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21. Give the formula which provides relationship between elasticity of demand and slope fo demand curve.

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1. What is meant by price elasticity of demand ? Explain any 2 factors that affect it.

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2. Discuss the percentage method for calculating price elasticity of demand.

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3. Draw three demand curves in which price elasticity of demand remains same at all points.

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4. Distinguish between perfect demand and perfectly inelastic demand. Draw diagrams also.

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5. Define unitary elastic demand and draw a demand curve for it. What is the significance of a unitary elastic demand curve ?

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6. Mention any three factors that affect the price elasticity of demand for a commodity.

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7. How is the price elasticity of demand for a commodity affected by the number of its substitutes? Explain.

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8. How does the nature of a commodity influence its price elasticity of demand?

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9. When two demand curves intersect each other, which one is more elastic?

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10. How is price elasticity of demand affected by: (i) Number of substitutes available for the good, (ii) Nature of the good.

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11. Explain the influence of following on price elasticity of demand of a good: (i) Substitute goods, (ii) Own price of the good.

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Long Answer

1. Explain the percentage method of determining of demand with the help of an example.

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2. Explain in brief, the following kinds of price elasticities of demand: (i) Highly elastic demand, (ii) Less Elastic Demand, (iii) Unitary elastic demand.

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3. Discuss various factors that affect price elasticity of demand .

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4. Explain the significance of elasticity of demand.



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Unsolved Practicals

1. The quantity demanded increases from 100 units to 200 units when the price decreases from ₹12 to ₹ 10. Calculate the elasticity of demand.



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2. As price of a commodity increases from ₹ 4 per unit to ₹ 5 per unit, demand falls from 20 units to 10 units. Find out the

elasticity of demand.



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3. The prices and quantities demanded of a commodity are given below. On this basis, find out the price elasticity of demand.

Price(Rs.)	10	20
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Demand(units)	20	15
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4. Price of a good falls from ₹ 10 to ₹8. As a result, its demand rises from 80 units to 100 units. What is the price elasticity of demand ?



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5. Demand increases by 10 units when the price decreases by ₹2. As a result, demand increases to 100 units and price decreases to ₹8. Find out the price elasticity of demand.

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6. Following is the market demand schedule of commodity X.

Calculate the coefficient of price elasticity of demand, when

price increases from ₹ 3 per unit to ₹5 per unit.

Price(Rs.)	7	6	5	4	3	2	1
Demand(units)	500	750	1.250	2.000	3.250	4.750	8.000

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7. Suppose that originally, a product was being sold at ₹ 10 per unit and the quantity demanded was 1,000 units. The product price changes to ₹14 and, as a result, the quantity demanded changes to 500 units. Calculate the price elasticity of demand.

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8. A consumer purchased 10 units of a commodity when its price was ₹ 5 per unit. He purchased 12 units of the commodity when its price fell to ₹ 4 per unit. What is the price elasticity of demand for the commodity ?

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9. following are the demand schedules for commodities A and B . Which one of them has more elastic demand ?

Commodity A		Commodity B	
Price (₹)	Quantity demanded (units)	Price (₹)	Quantity demanded (units)
10	100	20	100
12	90	18	110

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10. following is the demand schedule of commodity Y:

Calculate the elasticity of demand when ,(i) price rises from ₹ 15 to ₹ 20 , (ii) when price falls from ₹ 20 to ₹ 15 .

Price (₹)	15	16	17	20
Demand (units)	100	80	50	40

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11. The coefficient of price elasticity of demand for a commodity is 0.2. when price was ₹ 10 per unit. The quantity demanded was 40 units. If the price falls to ₹ 5 per unit, how much will be its quantity demanded ?

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12. Market demand for good at price ₹ 10 per unit is 100 units. When its price changes, its market demand falls to 50 units. Find out the new price, if the price elasticity of demand is (-)2.

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13. A consumer buys 160 units of a good at a price of ₹ 8 per unit. Price falls to ₹ 6 per unit. How much quantity will the

consumer buy at the new price, its price elasticity of demand is $(-)$ 2 ?

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14. A consumer buys 200 units of a good at a price of ₹5 per unit. With change in price, he buys only 100 units. If price elasticity is $(-)$ 1, find out the changed price.

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15. price of a commodity decreases from ₹ 10 to ₹ 5 per unit. If the price elasticity of demand is 3 and the original quantity demanded is 40 units. Calculate the new quantity demanded.

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16. The elasticity of demand for salt is zero. If the demand is 2 kg at the price of ₹ 5 per kg. calculate the demand if the price rises to ₹ 7.50 per kg ?



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17. Price elasticity of demand for a commodity is unity and a household demands 50 units of it when its price is ₹ 2 per unit. At what price will the household demand 45 units of the commodity ?



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18. The quantity demanded of a commodity falls by 5 units when price rises by ₹ 1 per units. Its price elasticity of demand is (-) 1.5. calculate the price before change if at this price quantity demanded was 60 units.

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19. What price of a commodity falls by ₹ 1 per unit , its quantity demanded rises by 3 units. Its price elasticity of demand is (-) 2. calculate its original quantity demanded if the price before the change was ₹ 10 per units.

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20. As price of a 5 per cent fall in the price of a good, its demand rises by 12 % find out the price elasticity of demand.

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21. A 3% fall in the price of X leads to a 9% rise in its demand.
A 5% rise in the price of Y leads to a 5% fall in its demand.
Calculate the price elasticity of demand for X and Y. which one is more elastic ?

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22. A 5 % fall in the price of X leads to a 10% rise in demand for X. A 2% rise in the price of Y leads to a 6 % fall in demand for Y. calculate elasticity of demand of X and Y.



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23. As the price of a commodity falls from ₹ 8 and ₹ 6, its demand rises from 100 units to 125 units. Find out the price elasticity of demand by percentage method.



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24. At a price of ₹ 20 per unit, the quantity demanded of commodity is 300 units. If the price falls by 10% , its quantity demanded rises by 60 units. Calculate its price elasticity.



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25. As a result of 10% rise in the price of a good, its demand falls from 100 unit to 90 units. Find out the price elasticity of demand.

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26. A household increases its demand for a commodity from 40 units to 50 units when its price falls by 10%. What is the price elasticity of demand of the commodity ?

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27. As price of a commodity falls from ₹ 7 per kg to ₹ 5 per kg, the total expenditure on it increases from ₹ 3,500 to ₹ 6,250 . Find out the elasticity fo demand .



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28. A consumer spend ₹ 80 on a commodity at a price of ₹ 1 per unit and ₹ 100 at a price of ₹ 2 per unit. What is the price elasticity of demand ?



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29. Mr. Ram spent ₹ 200 on a commodity and bought 20 units of it . When its price changed , he spent ₹ 300 and bought 15 units. Find out the elasticity of demand.



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30. On the basis of information given below, compare price elasticities of Goods A and B.

Good A		Good B	
Price per unit (₹)	Total Expenditure (₹)	Price per unit (₹)	Total Expenditure (₹)
4	20	3	15
5	15	4	4

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31. The price elasticity of demand of good X is double the price elasticity of demand of Good Y. A 10% rise in the price of good Y results in fall in its demand by 60 units. If original demand of commodity Y was 400, calculate percentage rise in quantity demanded of good X when its price falls from ₹ 10 to ₹ 8 per unit.

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32. A consumer buys a certain quantity of a good at a price of ₹ 10 per unit. When price falls to ₹ 8 per unit she buys 40% more quantity. Calculate price elasticity of demand.

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33. At a price of ₹ 5 per pen, the demand is 40 pens. The elasticity of demand is 0.75 and increases in price is ₹ 1 . Calculate the change in quantity of pens demanded.

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34. The price elasticity of demand of commodity X is $\frac{1}{2}$ of price elasticity of demand of commodity. When price of X falls by 40% , its demand rises by 20 units. Calculate price

elasticity of demand of commodity X and Y, it originally 100 units of X were demanded at price of ₹ 5 per unit.

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35. if $\frac{\Delta P}{P} = 0.2$ and price elasticity is (-) 2. calculate the percentage fall in demand. Also calculate the original expenditure if new expenditure is ₹ 180 at price of ₹ 6.

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36. The demand function of good 'A' is given as: $Q_A = 40 - 5P_A$. Calculate its price elasticity when price rises from ₹ 4 to ₹ 6.

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37. The ratio of change in price (ΔP) to original price (P) is 0.4 and elasticity of demand is (-) 1.50 . Calculate the percentage change in demand.

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38. Price elasticity of demand for a product is unity. Its demand is 25 units at a price of ₹ 5 per unit. If the price of product rises to ₹ 6 per unit, how much quantity of the product will be demanded ?

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39. the price of a commodity is ₹ 12 per unit and its quantity demanded is 500 units. When price rises by ₹ 3 per unit, its quantity demanded falls by 150 units. Calculate its price elasticity of demand. Is demand elastic ?

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40. Commodities A and B have equal price elasticity of demand . The demand of X rises from 100 units to 150 units due to a 20 per cent fall in its price. Calculate the percentage fall in demand of Y if its price rises by 8 per cent.

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41. The price of a commodity is ₹ 10 per unit and its quantity demanded at this price is 500 units. If its quantity demanded rise by 75 units due to fall in price by 10 per cent, calculate its price elasticity of demand.

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42. Form the following data, calculate price elasticity of demand.

Price (₹)	Demand (units)
9	100
9	150

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43. When price of a good is ₹ 13 per unit the consumer buys 11 units of that good, when price rises to ₹ 15 per unit, the consumer continues to buy 11 units. Calculate price elasticity of demand.

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44. The price elasticity of demand of a commodity is -0.5 . At a price of ₹ 20 per unit, total expenditure on it is ₹ 2,000. its price is reduced by 10 per cent. Calculate its demand at the reduced rate.

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45. A consumer buys 20 units of a good at a price of ₹5 per units. He incurs an expenditure of ₹ 120 , when he buys 24 units. Calculate price elasticity of demand using the percentage method. Comment upon the likely shape of demand curve based on this information.

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46. The price of commodity is ₹ 20 per unit and total expenditure on it ₹ 1,000. when its price falls to ₹ 18 per unit, total expenditure increases by 8 per cent. Calculate its price elasticity of demand by percentage in its demand.

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47. The price elasticity of demand of X is (-) 1.25. its price falls from ₹ 10 to ₹8 per unit. Calculate percentage change in its demand.

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48. The price elasticity of demand for a good is -0.4 if its price increases by 5 percent, by what percentage will its demand fall ? Calculate.

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49. The demand for good rises by 20 percent as a result of fall in its price elasticity of demand is (-) 0.8 . Calculate the percentage fall in price.



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50. A 5 per cent fall in the price of a good raises its demand from 300 units to 318 units. Calculate its price elasticity of demand.



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51. Price of a good rises from ₹ 7 per unit to ₹ 9 per unit but its demand remains unchanged. Calculate price elasticity of demand.



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52. price elasticity of demand of a good is -0.75 . calculate the percentage fall in its price that will result in 15 per cent rise in its demand.

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53. Price of a good rises by per cent but there is no effect on demand of the good due to this price rise. Calculate price elasticity of demand.

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54. A consumer spends ₹ 2,000 on a good priced at ₹ 8 per unit. Wgeb oruce rises by 25% the consumer continues to spend the same amount on the good. Calculate price

elasticity of demand by 25% the consumer continues to spend the same amount on the good. calculate price elasticity of demand by the percentage method.

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55. A consumer buys 18 units of a good at a price of ₹ 9 per unit. The price elasticity of demand for the good is (-)1. how many units the consumer will buy at a price of ₹ 10 per unit ? Calculate.

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56. Price elasticity of demand of a good is (-) 1. when its price per units falls by one rupees, it demand rises from 16 to 18

units. Calculate the price before change.



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57. A consumer buys 30 units of a good at a price of ₹ 10 per unit. Price elasticity of demand for the good is (-) 1. How many units the consumer will buy at a price of ₹ 9 per unit? Calculate.



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58. When price of a good falls from ₹ 15 per unit to ₹ 12 per unit. Its demand rises by 25 percent. Calculate price elasticity of demand.



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59. Price elasticity of demand of a good is $(-)$ 1. calculate the percentage change in price that will raise the demand from 20 units to 30 units.

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60. Price elasticity of demand of two good A and B $(-)$ 3 and $(-)$ 4 respectively. Which of the two goods has higher elasticity and why ?

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61. The quantity demanded of a good is 1,500 units at the price of ₹ 10 per unit. Its price elasticity of demand is $(-)$ 1.5.

calculate its quantity demanded, when its price falls to ₹ 8 per unit.

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62. The price elasticity of demand of a good is (-) 0.5. At a price of ₹ 20 per unit its demand is 300 units. At what price will its demand increase by 10 percent ?

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63. A consumer spends ₹ 1,000 on a good priced at ₹ 8 per unit. When price rises by 25 per cent, the consumer continues to spend ₹ 1,000 on the good. Calculate price elasticity of demand percentage method.

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64. A consumer spends ₹ 60 on a good priced at ₹ 5 per unit. When price falls by 20 per cent, the consumer continues to spend ₹ 60 on the good. Calculate price elasticity of demand by percentage method.

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65. A consumer spends ₹ 100 on good priced at ₹ 4 per unit. When price falls by 50 per cent, the consumer continues to spend ₹ 100 on the good. Calculate price elasticity of demand by percentage method.

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66. A consumer spends ₹ 1,000 on a good priced at ₹ 10 per unit. When price falls by 20 percent, the consumer spends ₹ 800 on the good. Calculate the price elasticity of demand by the percentage method.

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67. Price elasticity of demand of good X is -2 and of good Y is -3. Which of the two goods is more price elastic and why?

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68. What will be the effect of 10 percent rise in price of a good on its demand if price elasticity of demand is (a) zero, (b), -1 © -2.

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69. Price elasticity of demand of a good X and Y are zero and (-) 1 respectively. Which of the two is more elastic and why?

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70. Price of a commodity fall from ₹ 20 to ₹ 15 per unit. Its demand rises from 600 units to 750 units. Calculate its price elasticity of demand.

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71. The demand curve for the commodity is given as $D_x = 10 + 2P$. If slope of the demand curve is given to be

(-2), calculate price elasticity of demand for the commodity when demand is 10 units.



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72. The demand curve of a commodity is expressed as $D_x = 20 - 2P$. If slope of the demand curve is given to be (-2). Calculate price elasticity of demand for the commodity when demand is 10 units.



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73. Price of a commodity falls from ₹ 40 to ₹ 30 per unit. Quantity demanded initially was 60 units. By how much the

quantity will rise if elasticity of demand is established to be unitary ?



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74. When price of a commodity X falls by 10 per cent, its demand rises from 150 units to 180 units. Calculate its price elasticity of demand . How much should be the percentage fall in its price so that its demand rises from 150 to 210 units.



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75. When price of good rises from $\hat{a},^{10}$ to $\hat{a},^{12}$ per unit its quantity demanded falls by 20%. Calculate its price elasticity of demand. How much would be the percentage change in its

quantity demanded, if the price rises from $\hat{a},^{10}$ per units to $\hat{a},^{13}$ per units ?



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76. When the price of commodity A falls from ₹10 to ₹5 per unit, its quantity demanded doubles. Calculate its elasticity of demand. At what price will its quantity demanded fall by 50 percent ?



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77. Due to 10 percent fall in the price of X , its demand rises 100 units to 120 units. How much percentage will its demand fall due to 10 percent rise in its price ?



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78. When price of a good falls by 50 percent, its demand rises by 60 percent . Calculate its price elasticity of demand.

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79. When price of a good falls from ₹ 10 per unit to ₹ 7 per unit, quantity demanded of the good rises from 100 to 160 units. Calculate its elasticity of demand.

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