Solutions

Marking: **M1** a correct method, **A1** the correct answer, **B1** an independent mark.

Each answer shows the steps, then the **result**.

2.1

a measure of how responsive the quantity demanded of a good is; to a change in its own price

2.2

any two: few close substitutes in the short run; a necessity for many drivers / workers who commute; habit; costs of switching to electric cars or public transport are high

2.3

demand for food is price inelastic: necessity, few substitutes; supply is price inelastic in the short run because crops take time to grow; supply shifts a lot because of weather and disease; with steep (inelastic) curves, a shift in supply causes a large change in price

2.4

$\%\Delta Q = -10\%$, $\%\Delta P = +20\%$, PED = $\mathbf{-0.5}$ (inelastic); TR rises from \$20,000 to \$21,600, a rise of \$**1600**; yes: demand is inelastic, so the price rise increased revenue

2.5

bus: $-2 \div 5 = \mathbf{-0.4}$: inferior good; meals: $8 \div 5 = \mathbf{1.6}$; a normal good and a luxury (income elastic)

3.1

(a) addictive / habit-forming; few close substitutes

(b) a tax raises the price; because demand is inelastic, quantity falls only a little; so the tax raises a lot of revenue: aim 1 met; but smoking falls only a little: aim 2 only partly met; in the long run demand becomes more elastic (people quit, fewer start), so smoking falls more; risks: smuggling, a regressive burden on low-income smokers; judgement: good for revenue; for health it works better with bans, education and support to quit

3.2

(a) $\%\Delta Q_s = 10\%$, $\%\Delta P = 10\%$; PES = **1** (unit elastic)

(b) in the long run firms can build new factories, hire and train workers, and new firms can enter; so quantity supplied can respond more to a price change

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