

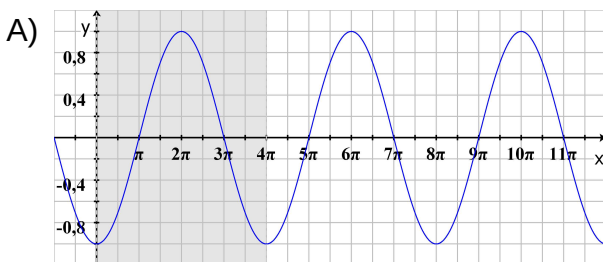
# Trigonometrische Funktionen

## Periodizität (Lösungsvorschläge)

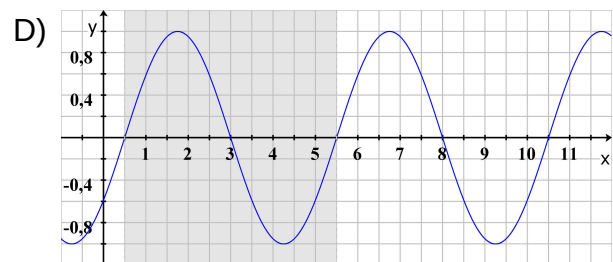
### Gleichungen Lösen

- a) z.B.  $x \in \left\{ \frac{\pi}{6}, \frac{5}{6}\pi, \frac{13}{6}\pi \right\}$
- b) 3 Lösungen:  $x \in \{-\pi, 0, \pi\}$
- c) 4 Lösungen:  $x \in \left\{ \frac{\pi}{3}, \frac{2}{3}\pi, \frac{7}{3}\pi, \frac{8}{3}\pi \right\}$
- d) z.B.  $\delta = 1 + 2\pi$
- e)  $x \in \left\{ -\frac{4}{3}\pi, -\frac{2}{3}\pi, \frac{2}{3}\pi \right\}$
- f) Die Gleichung besitzt unendlich viele Lösungen für  $x$ .

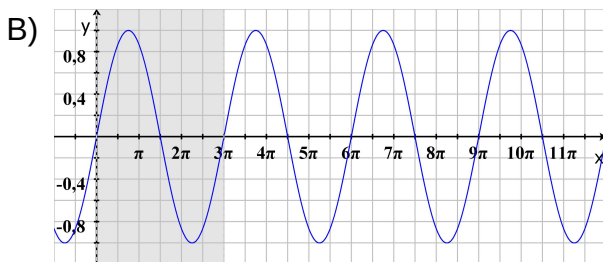
### Periodenlänge



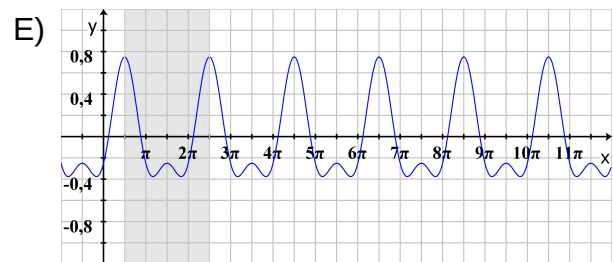
$p = 4\pi$



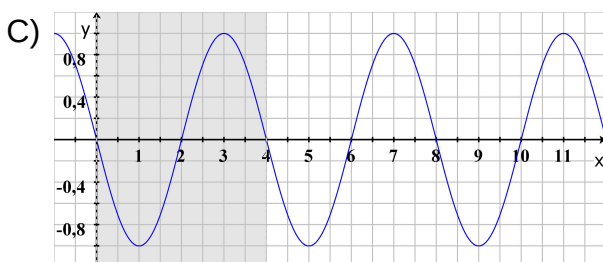
$p = 5$



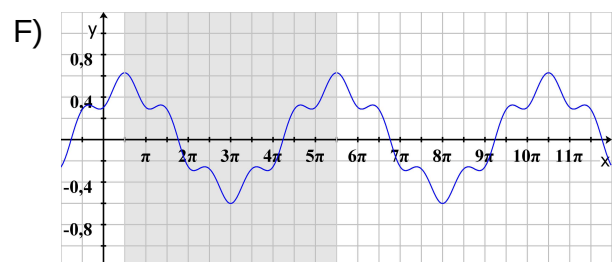
$p = 3\pi$



$p = 2\pi$



$p = 4$



$p = 5\pi$

