Mat IVa Di 29.09.11

Arbeitsblatt: Übungen zu trigonometrischen Funktionen (Lösungen)

Seite 1:

1

a) $a = 1;\quad p = 4\pi$ b) $a = 3;\quad p = 2$

c) $a = 0{,}2;\quad p = \frac{8}{3}$

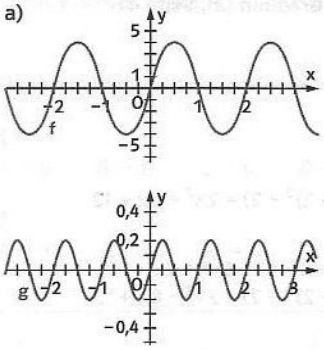
2

a) $f(x) = 2 \cdot \sin(2x)$ b) $f(x) = \pi \cdot \sin(\pi x)$

c) $f(x) = 0{,}3 \cdot \sin\left(\frac{20}{3}\pi \cdot x\right)$

3

a)



Seite 2:

1

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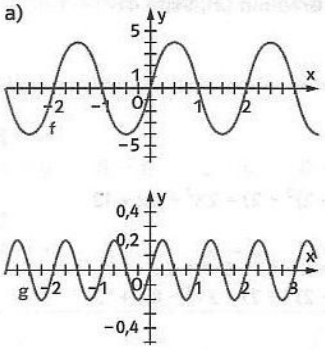
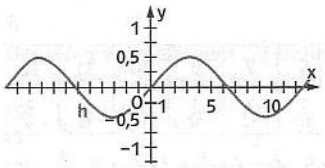
3

a)





b) links: $p = 1;\quad a = 0{,}5;\quad f(x) = 0{,}5 \cdot \sin(2\pi \cdot x)$

Mitte: $p = \frac{2}{3}\pi;\quad a = 1{,}5;\quad f(x) = 1{,}5 \cdot \sin(3 \cdot x)$

rechts: $p = 2;\quad a = 2;\quad f(x) = 2 \cdot \sin(\pi \cdot x) + 1$

4

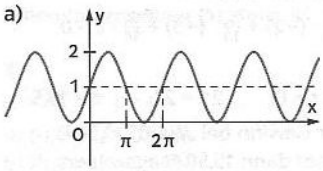
a) $f(x) = \sin(2\pi \cdot x) + 2$

b) $f(x) = 2 \cdot \sin(2 \cdot x) + 2$

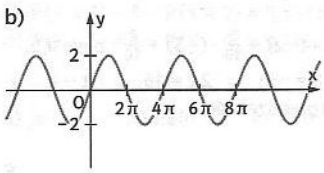
c) $f(x) = \sin\left(\frac{\pi}{2} \cdot x\right)$

5

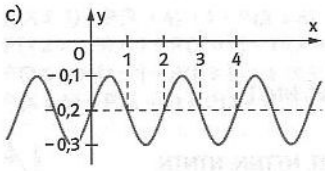
a)



b)



c)



6

$a = 2{,}5;\quad b = 0{,}5;\quad d = -1{,}5$