

Onderwerp B4: Co(sinus)

2018-1

3p

17/10

$$2 + 3 \sin\left(\pi\left(x + \frac{1}{4}\right)\right) = \frac{7}{2}$$

$$3 \sin\left(\pi\left(x + \frac{1}{4}\right)\right) = \frac{3}{2}$$

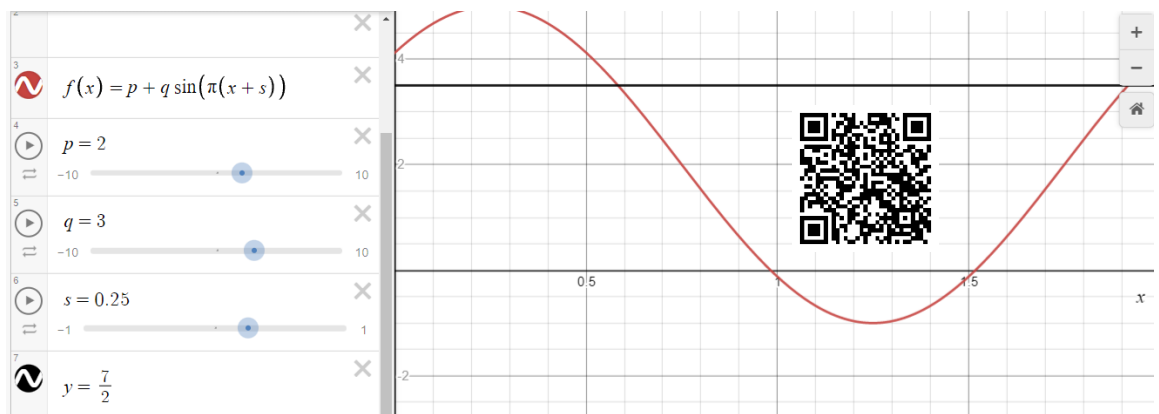
$$\sin\left(\pi\left(x + \frac{1}{4}\right)\right) = \frac{1}{2}$$

$$\pi\left(x + \frac{1}{4}\right) = \frac{\pi}{6} + k \cdot 2\pi \quad \text{of} \quad \pi\left(x + \frac{1}{4}\right) = \frac{5\pi}{6} + k \cdot 2\pi \quad k \text{ is geheel getal}$$

$$x + \frac{1}{4} = \frac{1}{6} + k \cdot 2 \quad \text{of} \quad x + \frac{1}{4} = \frac{5}{6} + k \cdot 2$$

$$x = \frac{1}{6} - \frac{1}{4} + 2 = \frac{2}{12} - \frac{3}{12} + \frac{24}{12} = \frac{23}{12} \quad \text{of} \quad x = \frac{5}{6} - \frac{1}{4} + 2 = \frac{10}{12} - \frac{3}{12} = \frac{7}{12}$$

dia 48



5p

18/11

$$f(x) = 2 + 3 \sin\left(\pi\left(x + \frac{1}{4}\right)\right)$$

$$g(x) = p + q \cos(r(x+s))$$

$$q = 2 \cdot 3 = 6$$

$$\text{max waarde } f(x) = 2 + 3 = 5$$

$$\text{max waarde } g(x) = p + q = 5 \rightarrow p = -1$$

$$r = \frac{2\pi}{4} = \frac{\pi}{2}$$

$$f \text{ is max als } \left(x + \frac{1}{4}\right) = \frac{1}{2} \rightarrow x = \frac{1}{4}$$

$$\text{ook } g \text{ is max als } x = \frac{1}{4} \text{ en } r(x+s) = 0$$

$$\frac{\pi}{2} \left(\frac{1}{4} + s\right) = 0 \rightarrow s = -\frac{1}{4}$$


dia 43


dia 44





1
1
1
1


1
1
1
1


2  $f(x) = 2 + 3 \sin\left(\pi\left(x + \frac{1}{4}\right)\right)$ ✕

3  $g(x) = p + q \cdot \cos(r(x + s))$ ✕

4  $p = -1$ ✕
 -10 10

5  $q = 6$ ✕
 -10 10

6  $r = \frac{\pi}{2}$ ✕
 $\leq \theta \leq$

7  $s = -0.25$ ✕
 1

