

**Soutien 5.3**

1. a)  $x = \frac{\pi}{6}$  et  $x = \frac{5\pi}{6}$ .  
d)  $x = \pi$   
g)  $x = \frac{5\pi}{6}$  et  $x = \frac{7\pi}{6}$ .
2. a)  $\sin 6(x - 11) = -\frac{3}{8}$   
d)  $\tan \frac{\pi}{5}(x + 8) = -\frac{1}{2}$
- b)  $x = \frac{3\pi}{4}$  et  $x = \frac{5\pi}{4}$ .  
e)  $x = 0$  et  $x = \pi$ .  
h)  $x = 0$  et  $x = \pi$ .
- b)  $\cos \pi(x + 14) = \frac{4}{9}$   
e)  $\sin 4\left(x - \frac{\pi}{2}\right) = \frac{\sqrt{3}}{2}$
- c)  $x = \frac{\pi}{4}$  et  $x = \frac{5\pi}{4}$ .  
f)  $x = \frac{\pi}{4}$  et  $x = \frac{3\pi}{4}$ .  
i)  $x = \frac{2\pi}{3}$  et  $x = \frac{4\pi}{3}$ .
- c)  $\cos \frac{\pi}{2}(x + 6) = -1$   
f)  $\sin 3\pi(x - 9) = 0$

**Soutien 5.3 (suite)**

3. a)  $x \in \{\approx 0,07, \approx 0,46, \approx 1,12, \approx 1,51, \approx 2,16, \approx 2,56, \approx 3,21, \approx 3,61, \approx 4,26, \approx 4,65, \approx 5,3, \approx 5,7\}$   
b)  $x \in \{\approx 0,35, \approx 1,65, \approx 2,35, \approx 3,65, \approx 4,35, \approx 5,65\}$   
c)  $x \in \{0, 4\}$

# Solution 5.3

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- d)  $x \in \{\approx 1,26, \approx 6,26\}$   
e)  $x \in \left\{ \frac{\pi}{12}, \frac{\pi}{6}, \frac{7\pi}{12}, \frac{2\pi}{3}, \frac{13\pi}{12}, \frac{7\pi}{6}, \frac{19\pi}{12}, \frac{5\pi}{3} \right\}$   
f)  $x \in \left\{ 0, \frac{1}{3}, \frac{2}{3}, \dots, \frac{16}{3}, \frac{17}{3}, 6 \right\}$

4. a)  $\sin \pi x \geq \frac{\sqrt{3}}{2}$

c)  $\tan\left(x - \frac{\pi}{4}\right) \geq 1$

5. a)  $x \in \left[ \frac{1}{3}, \frac{2}{3} \right] \cup \left[ \frac{7}{3}, \frac{8}{3} \right]$

c)  $x \in \left[ \frac{\pi}{2}, \frac{3\pi}{4} \right]$

b)  $\cos(x + \pi) \leq 0$

d)  $\cos 2\left(x + \frac{\pi}{2}\right) \leq \frac{\sqrt{2}}{2}$

b)  $x \in \left[ 0, \frac{\pi}{2} \right]$

d)  $x \in \left[ 0, \frac{3\pi}{8} \right] \cup \left[ \frac{5\pi}{8}, \pi \right]$