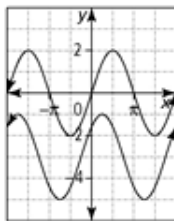
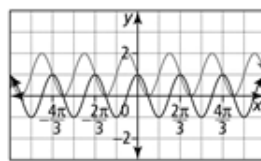


BLM 5-3 Section 5.2 Extra Practice

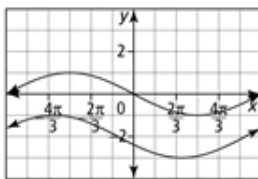
1. a)



b)



c)



2. a) phase shift = 25, vertical displacement = 3.2
 b) phase shift = $-\frac{\pi}{6}$, vertical displacement = -7
 c) phase shift = $\frac{\pi}{8}$, vertical displacement = 5
 d) phase shift = $-\frac{2\pi}{3}$, vertical displacement = -1
3. a) period = 180° , range = $\{y \mid -10 \leq y \leq -2, y \in \mathbb{R}\}$
 b) period = 6π , range = $\{y \mid -1 \leq y \leq 5, y \in \mathbb{R}\}$
 c) period = 72° , range = $\{y \mid 1.9 \leq y \leq 6.5, y \in \mathbb{R}\}$
 d) period = $\frac{2\pi}{3}$, range = $\{y \mid -10 \leq y \leq 4, y \in \mathbb{R}\}$

3. a) period = 180° , range = $\{y \mid -10 \leq y \leq -2, y \in \mathbb{R}\}$

b) period = 6π , range = $\{y \mid -1 \leq y \leq 5, y \in \mathbb{R}\}$

c) period = 72° , range = $\{y \mid 1.9 \leq y \leq 6.5, y \in \mathbb{R}\}$

d) period = $\frac{2\pi}{3}$, range = $\{y \mid -10 \leq y \leq 4, y \in \mathbb{R}\}$

4. period = $\frac{2\pi}{|b|}$,

range = $\{y \mid d - |a| \leq y \leq d + |a|, y \in \mathbb{R}\}$

5. a) $y = 3 \sin 4\left(x - \frac{\pi}{2}\right) + 5$ b) $y = \frac{1}{2} \sin 3(x + 50^\circ) - 4$

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

Quiz sheet

1. D 4. D
 2. B 5. D
 3. B