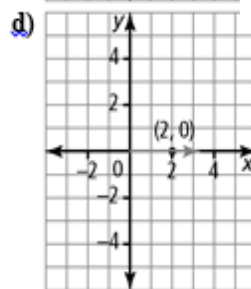
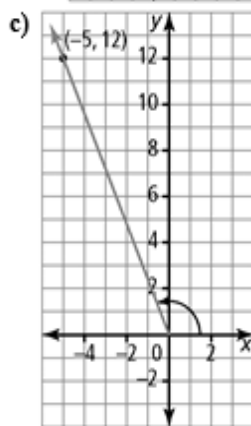
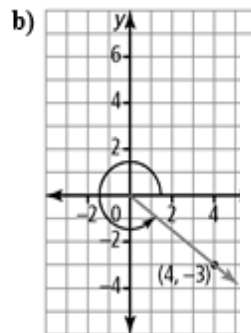
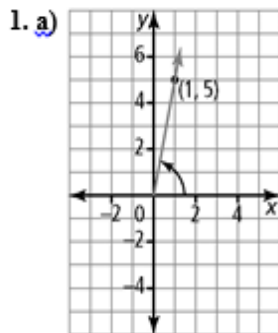


BLM 2-5 Section 2.2 Extra Practice



8. a) False.  $\sin 120^\circ$  is in quadrant II so it is positive, and  $\cos 210^\circ$  is in quadrant III so it is negative.  
 b) False.  $\cos 170^\circ$  is in quadrant II so it is negative, and  $\cos 350^\circ$  is in quadrant IV so it is positive.  
 c) True. The reference angle for both  $\sin 200^\circ$  and  $\sin 340^\circ$  is  $20^\circ$ . Both are negative.  
 d) True. The reference angles are not equal, but both ratios,  $\cos 300^\circ$  and  $\sin 150^\circ$  are equal to 0.5. Both are positive since the cosine ratio is positive in quadrant IV and the sine ratio is positive in quadrant II.

2. a)  $\sin \theta = \frac{5}{\sqrt{26}}$ ;  $\cos \theta = \frac{1}{\sqrt{26}}$ ;  $\tan \theta = 5$

b)  $\sin \theta = \frac{3}{5}$ ;  $\cos \theta = \frac{4}{5}$ ;  $\tan \theta = \frac{-3}{4}$

c)  $\sin \theta = \frac{12}{13}$ ;  $\cos \theta = \frac{-5}{13}$ ;  $\tan \theta = \frac{12}{-5}$

d)  $\sin \theta = 0$ ;  $\cos \theta = 1$ ;  $\tan \theta = 0$

3. a)  $\sin \theta = \frac{1}{\sqrt{2}}$ ;  $\cos \theta = \frac{-1}{\sqrt{2}}$ ;  $\tan \theta = -1$

b)  $\sin \theta = \frac{\sqrt{3}}{2}$ ;  $\cos \theta = \frac{1}{2}$ ;  $\tan \theta = \sqrt{3}$

c)  $\sin \theta = \frac{-1}{2}$ ;  $\cos \theta = \frac{\sqrt{3}}{2}$ ;  $\tan \theta = \frac{-1}{\sqrt{3}} = -\frac{\sqrt{3}}{3}$

4. a) positive b) negative c) negative d) negative

5. a)  $\cos \theta = \frac{-4}{5}$ ;  $\tan \theta = \frac{3}{4}$

b)  $\sin \theta = \frac{-\sqrt{5}}{3}$ ;  $\tan \theta = \frac{-\sqrt{5}}{2}$

c)  $\sin \theta = \frac{5}{13}$ ;  $\cos \theta = \frac{-12}{13}$

6. a)  $225^\circ, 315^\circ$  b)  $30^\circ, 210^\circ$  c)  $30^\circ, 330^\circ$  d)  $270^\circ$

7. a)  $51^\circ, 129^\circ$  b)  $144^\circ, 216^\circ$  c)  $138^\circ, 318^\circ$  d)  $260^\circ, 280^\circ$

