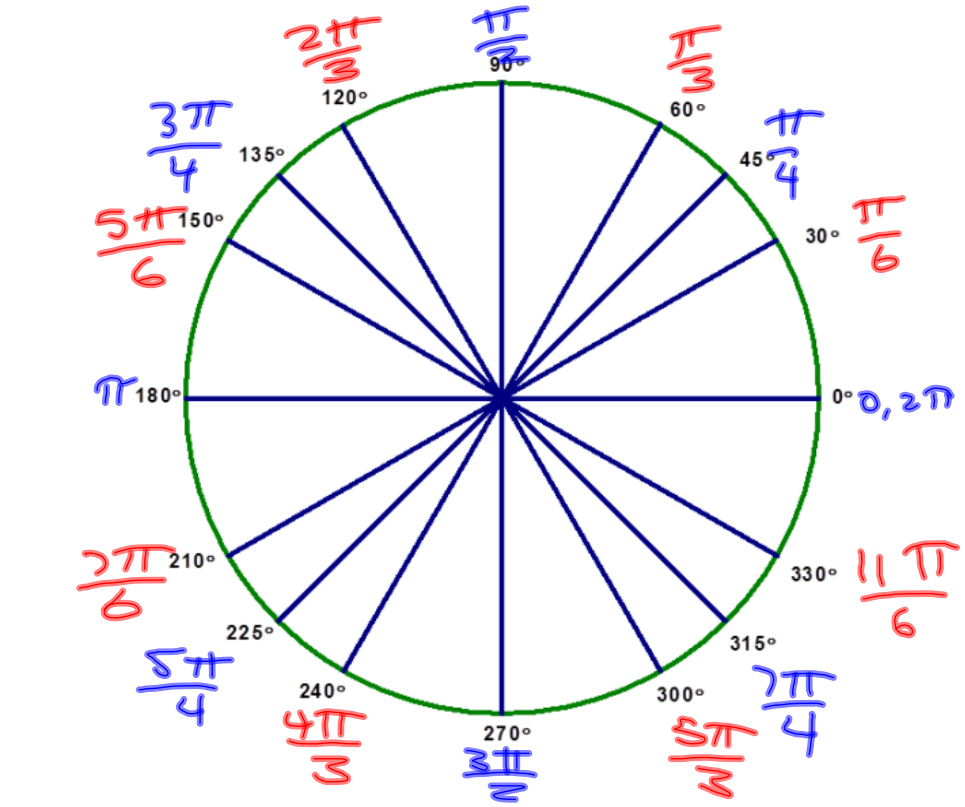
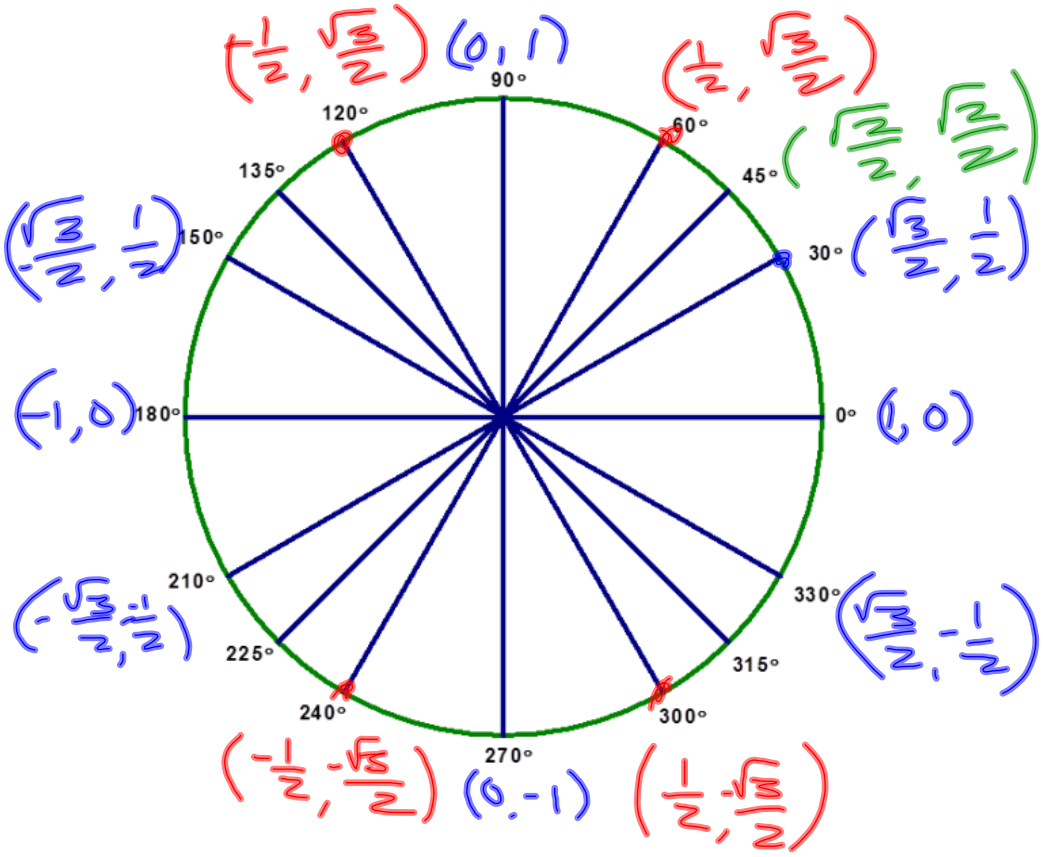
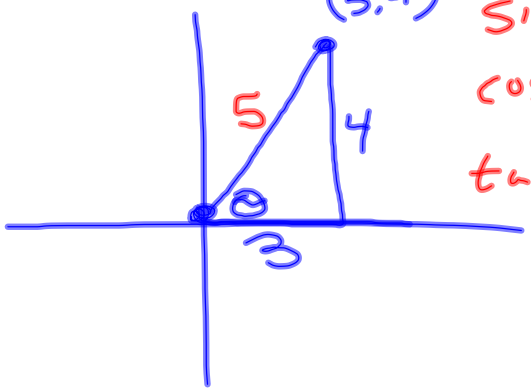

90°
120°
60°
135°
45°
150°
30°
180°
0°
210°
330°
225°
315°
240°
300°
270°


90°
120°
60°
135°
45°
150°
30°
180°
0°
210°
330°
225°
315°
240°
300°
270°

4-7-14

Find the sine and cosine of the angle with the given coordinate:

① (3,4)

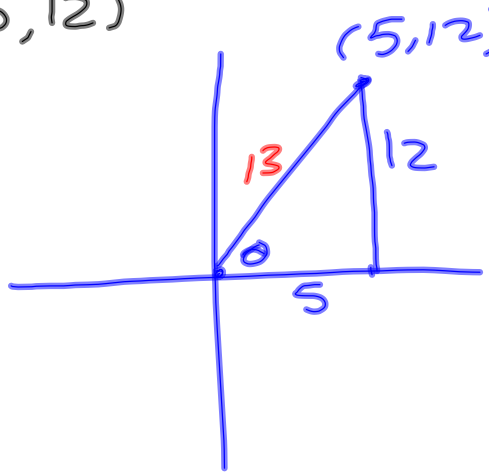


$\sin\theta = \frac{4}{5}$

$\cos\theta = \frac{3}{5}$

$\tan\theta = \frac{4}{3}$

② (5,12)

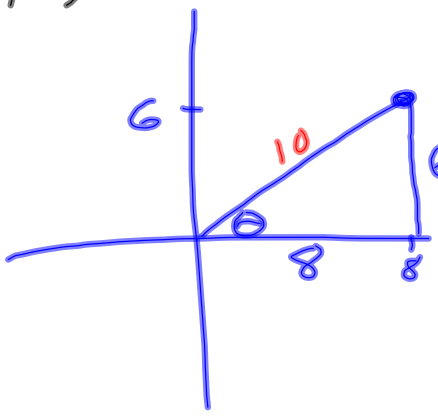


$\sin\theta = \frac{12}{13}$

$\cos\theta = \frac{5}{13}$

$\tan\theta = \frac{12}{5}$

③ (8,6)

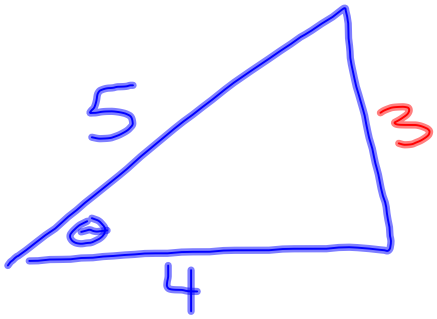


$\sin\theta = \frac{6}{10} = \frac{3}{5}$

$\cos\theta = \frac{8}{10} = \frac{4}{5}$

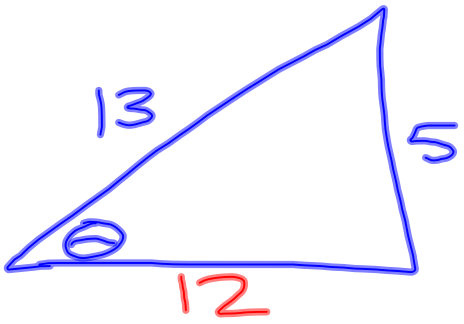
$\tan\theta = \frac{6}{8} = \frac{3}{4}$

If $\cos\theta = \frac{4}{5}$, what is $\tan\theta$?



$\tan\theta = \frac{opp}{adj} = \frac{3}{4}$

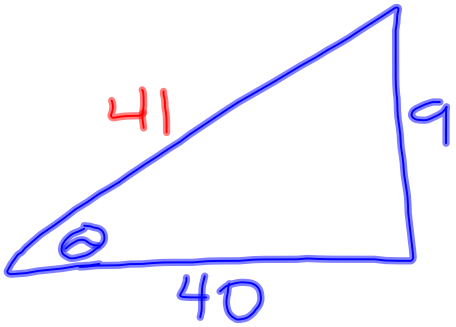
If $\sin\theta = \frac{5}{13}$, what is $\cos\theta$?



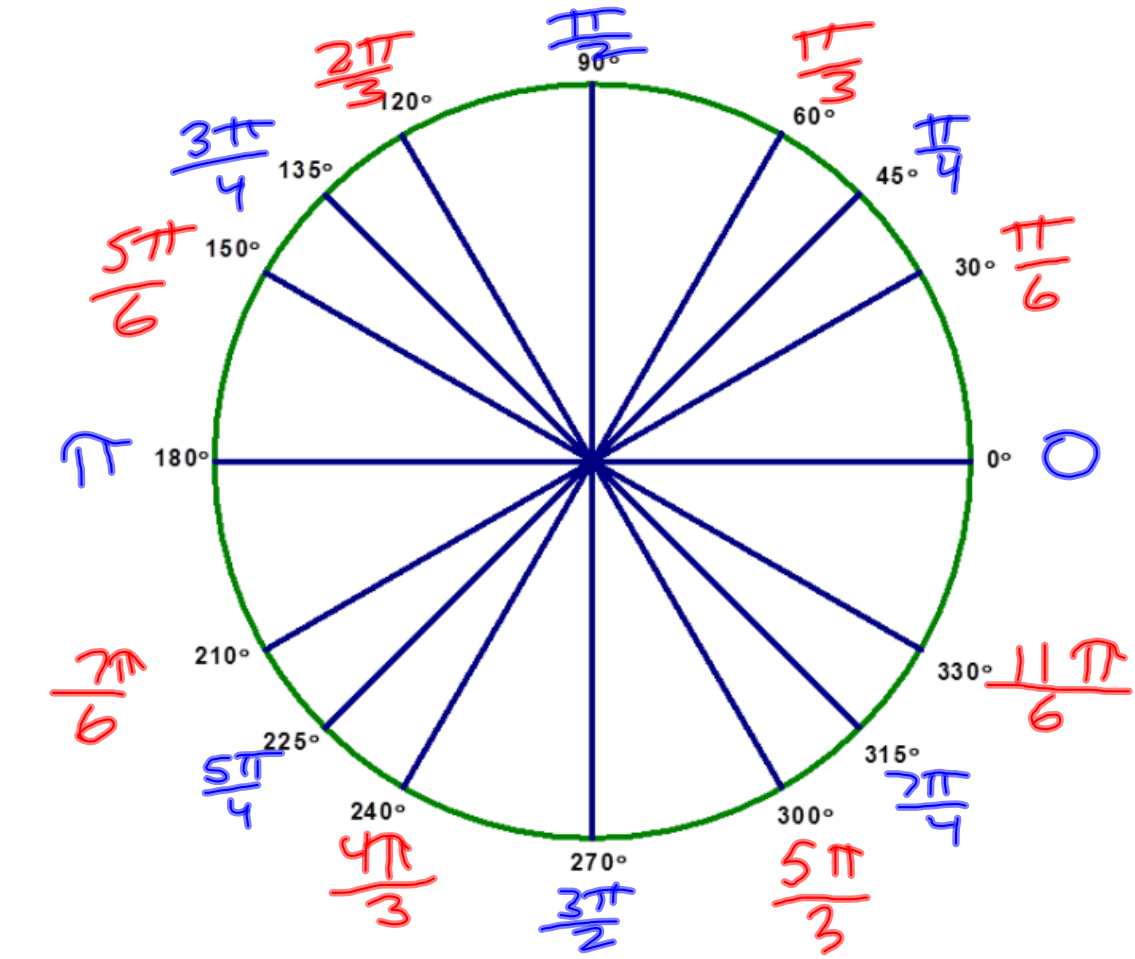
$\cos\theta = \frac{adj}{hyp} = \frac{12}{13}$

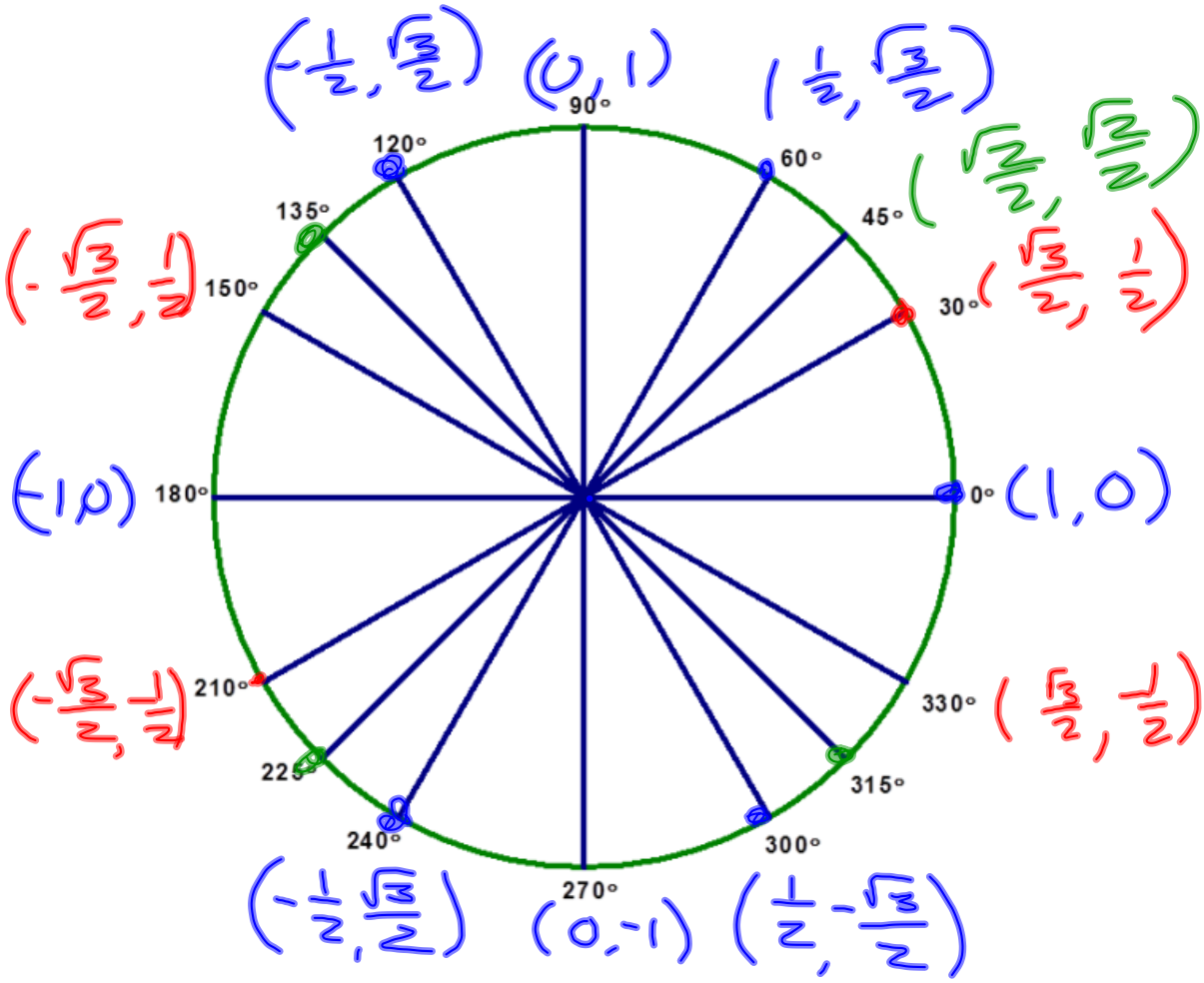
0°

If $\tan\theta = \frac{9}{40}$, find $\sin\theta$?



$\sin\theta = \frac{opp}{hyp} = \frac{9}{41}$

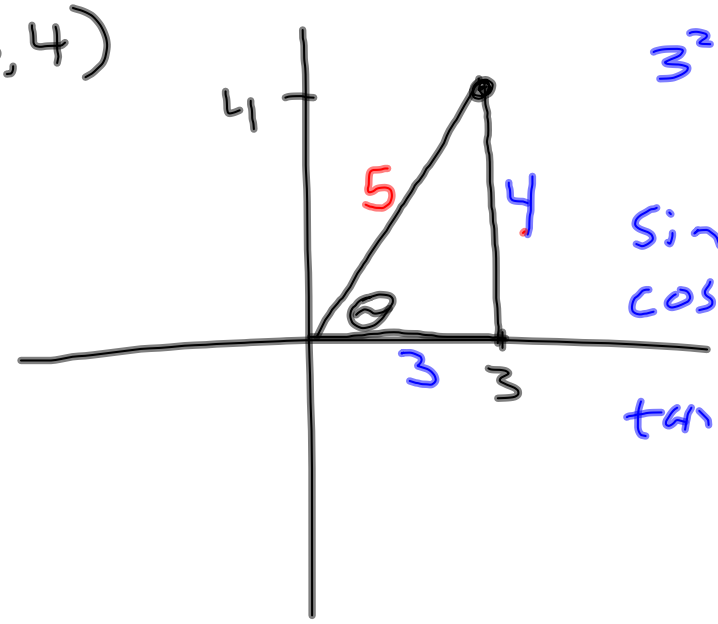

90°
60°
45°
30°
0°
330°
315°
300°
270°
240°
225°
210°
180°
150°
135°
120°


90°
60°
45°
30°
0°
330°
315°
300°
270°
240°
225°
210°
180°
150°
135°
120°

4.7-14
4th Trig

Find θ's value if the point with the given coordinates lies on its terminal side.

① $(3,4)$



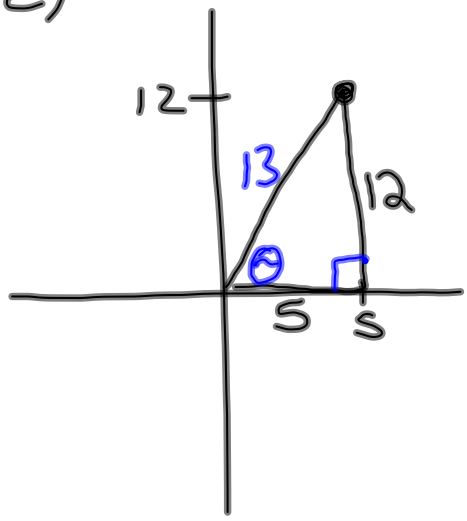
$3^2+4^2=c^2$

$\sin\theta = \frac{4}{5}$

$\cos\theta = \frac{3}{5}$

$\tan\theta = \frac{4}{3}$

② $(5,12)$



$5^2+12^2=c^2$

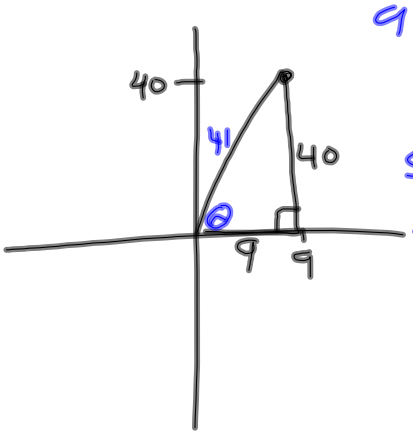
$c=13$

$\cos\theta = \frac{5}{13}$

$\tan\theta = \frac{12}{5}$

$\sin\theta = \frac{12}{13}$

③ (9, 40)



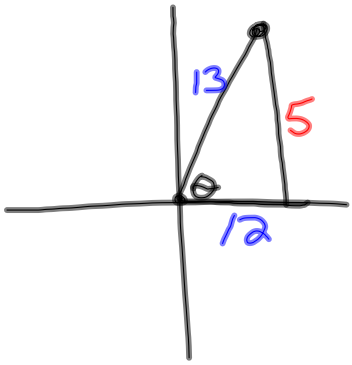
$9^2 + 40^2 = c^2$

$c = 41$

$\sin\theta = \frac{40}{41}$

$\tan\theta = \frac{40}{9}$

④ Find $\tan\theta$ when $\cos\theta = \frac{12}{13}$ and terminal side of θ is in 1st quadrant.

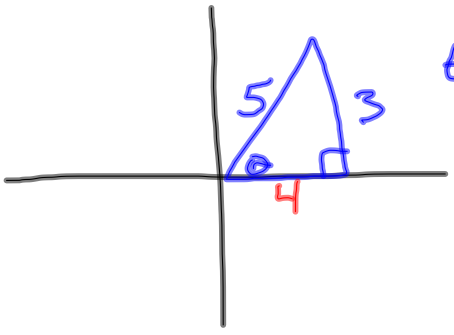


$a^2 + 12^2 = 13^2$

$a = 5$

$\tan\theta = \frac{5}{12}$

⑤ Find $\tan\theta$ when $\sin\theta = \frac{3}{5}$ and terminal side of θ is in 1st quadrant



$\tan\theta = \frac{3}{4}$