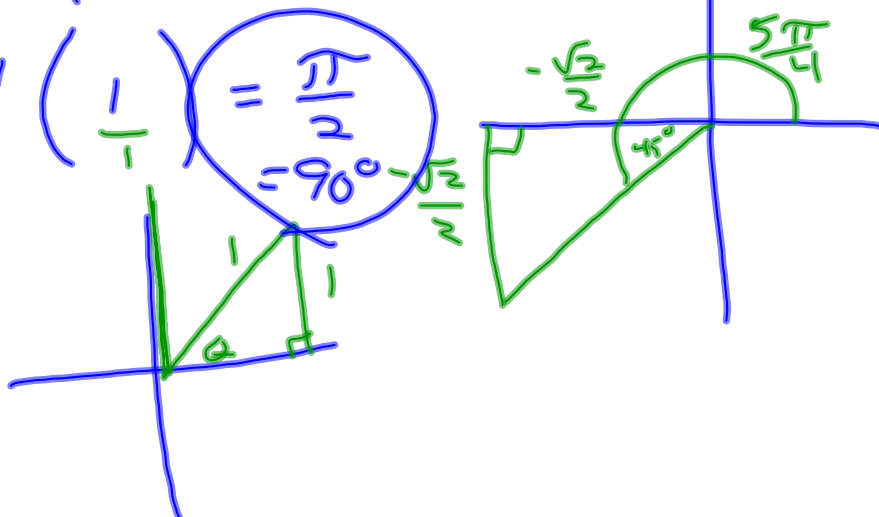


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$$\sin^{-1}\left(\tan \frac{5\pi}{4}\right)$$

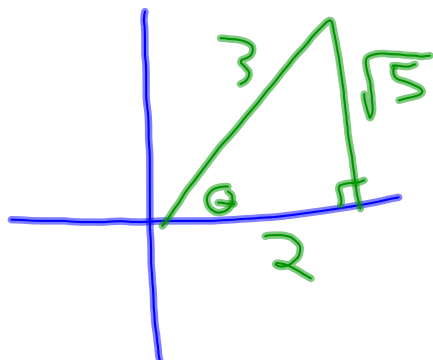
$$\sin^{-1}\left(\frac{1}{\sqrt{2}}\right) = \frac{\pi}{4}$$



## 4-7 Inverse Trig Functions (cont.)

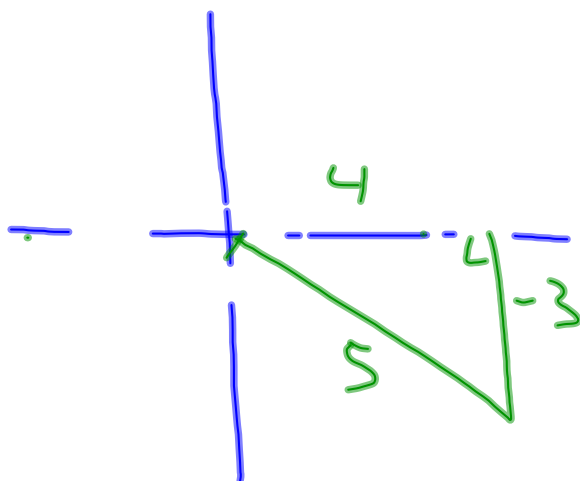
Ex 1 Find the exact value of the expression.

$$\tan\left(\arccos \frac{2}{3}\right) = \frac{\sqrt{5}}{2}$$



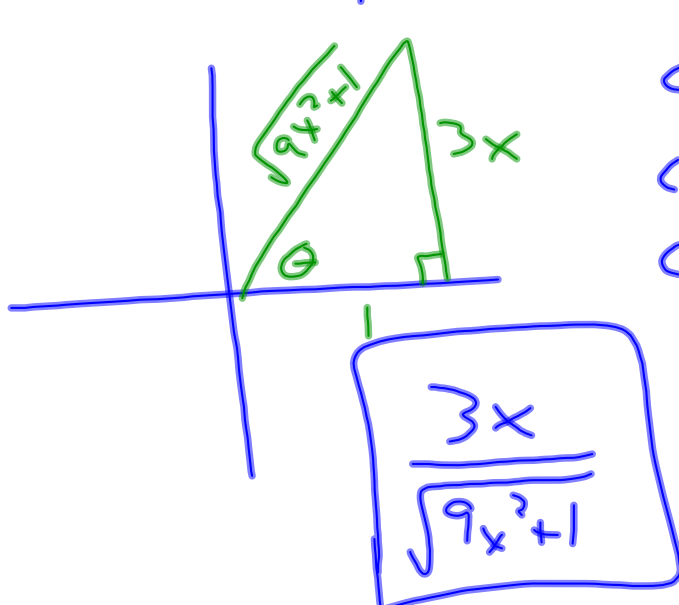
Ex 2 Find the exact value of the expression.

$$\cos(\arcsin -\frac{3}{5}) = \frac{4}{5}$$



Ex 3 Write an equivalent algebraic expression.

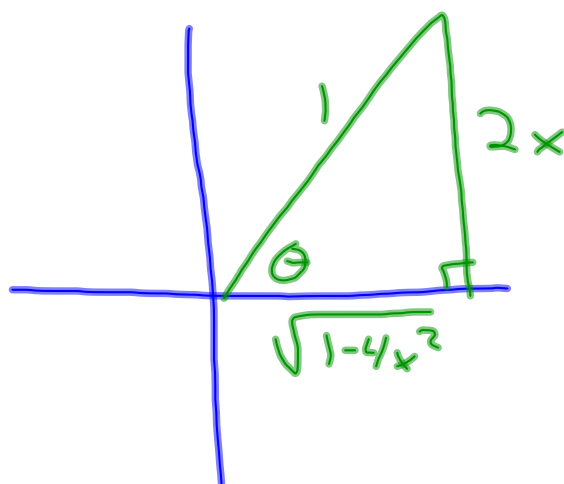
$$\sin(\tan^{-1} \frac{3x}{1})$$



$$\begin{aligned} c^2 &= (3x)^2 + 1^2 \\ c^2 &= 9x^2 + 1 \\ c &= \sqrt{9x^2 + 1} \end{aligned}$$

Ex 4 Write an equivalent algebraic expression.

$$\cos(\sin^{-1} 2x) = \frac{\sqrt{1-4x^2}}{1}$$



$$\begin{aligned} a^2 + (2x)^2 &= 1^2 \\ a^2 + 4x^2 &= 1 \\ a^2 &= 1 - 4x^2 \\ a &= \sqrt{1 - 4x^2} \end{aligned}$$

Homework  
p.328  
#47-61 odds