

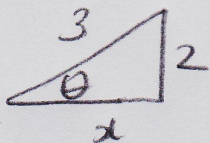
Name: _____

Find the exact value of $\tan(\arcsin \frac{2}{3})$

$$\text{Let } \theta = \arcsin \frac{2}{3}$$

$$\sin \theta = \frac{2}{3}$$

$$\frac{y}{r} = \frac{2}{3}$$



$$x^2 + 4 = 9$$

$$x^2 = 5$$

$$x = \pm \sqrt{5}$$

$$x = \sqrt{5}$$

$$\begin{aligned} \text{Want } \tan \theta &= \frac{y}{x} \\ &= \frac{2}{\sqrt{5}} \text{ or } \frac{2\sqrt{5}}{5} \end{aligned}$$