

name: Solution

1 (10 points). Simplify, i.e. find an algebraic expression, for  $\cos(\arcsin(x))$ .

Let  $\theta = \arcsin(x)$ . Then  
 $\sin(\theta) = x = \frac{x}{1}$ .



The remaining side is  
 $\sqrt{1-x^2}$

$$\begin{aligned}\text{So } \cos(\arcsin(x)) &= \cos(\theta) \\ &= \sqrt{1-x^2}.\end{aligned}$$