Talk with the people around you for a minute

$$\arcsin\left(\frac{\sqrt{3}}{2}\right) =$$

(a) $\frac{\pi}{6}$

(b) $\frac{\pi}{4}$

(c) $\frac{\pi}{3}$

(d) $\frac{7\pi}{3}$

(e) 42

Talk with the people around you for a minute

$$\arcsin\left(-\frac{1}{2}\right) =$$

(a) $\frac{5\pi}{6}$

(b) $\frac{\pi}{3}$

(c) $\frac{7\pi}{6}$

(d) $-\frac{\pi}{3}$

(e) $-\frac{\pi}{6}$

Work on these with your partner(s) at the board

1. $\dfrac{d}{dx}\arcsin(\ln(x))$

2. $\dfrac{d}{dx}\arctan(\sec(x^3))$

3. $\displaystyle\int \frac{x+3}{\sqrt{1-(x^2+6x)^2}}\,dx$

4. $\displaystyle\int \frac{\sin(4x)}{1+\cos(4x)^2}\,dx$

5. $\displaystyle\int \frac{e^x}{1+e^{2x}}\,dx$

6. $\displaystyle\int_0^1 \frac{e^x}{1+e^x}\,dx$

7. $\displaystyle\int e^x\sqrt{1+e^x}\,dx$

8. $\displaystyle\int x\,e^x\,dx$