

5.  $\cos(\arcsin -\frac{1}{2})$

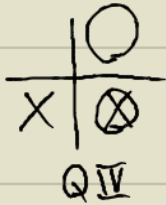
①  $P = \arcsin -\frac{1}{2}$

$\sin P = \sin(\arcsin -\frac{1}{2})$

$\sin P = -\frac{1}{2}$

AND

$\sin$  IS  $\frac{y}{r}$



so  $y = -1, r = 2$

$x^2 + y^2 = r^2$

$x^2 + (-1)^2 = 2^2$

$x^2 + 1 = 4$

$x^2 = 3$

$x = \pm\sqrt{3}$   
 $x = \sqrt{3}$

②  $\cos$  IS  $\frac{x}{r}$

SO

$\frac{\sqrt{3}}{2}$

$x, y, r$   
Formulas

$\cos \theta = \frac{x}{r}$

$\sin \theta = \frac{y}{r}$

$\tan \theta = \frac{y}{x}$

$\sec \theta = \frac{r}{x}$

$\csc \theta = \frac{r}{y}$

$\cot \theta = \frac{x}{y}$

6.  $\tan(\arccos \frac{3}{7})$

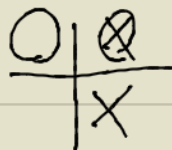
①  $P = \arccos \frac{3}{7}$

$\cos P = \cos(\arccos \frac{3}{7})$

$\cos P = \frac{3}{7}$

AND

$\cos$  IS  $\frac{x}{r}$



so  $x = 3, r = 7$

$x^2 + y^2 = r^2$

$3^2 + y^2 = 7^2$

$9 + y^2 = 49$

$y^2 = 49 - 9$

$y^2 = 40$

$y = \pm\sqrt{40}$

$y = \sqrt{2 \cdot 2 \cdot 2 \cdot 5}$

$y = 2\sqrt{10}$

②  $\tan$  IS  $\frac{y}{x}$

SO

$\frac{2\sqrt{10}}{3}$