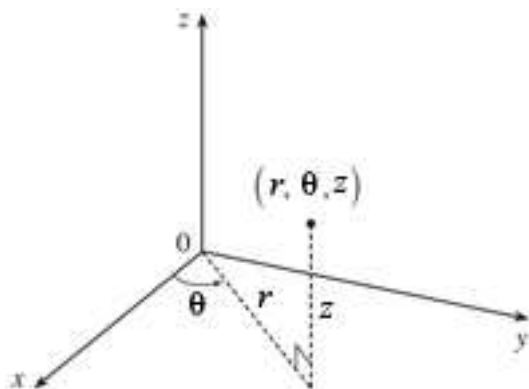
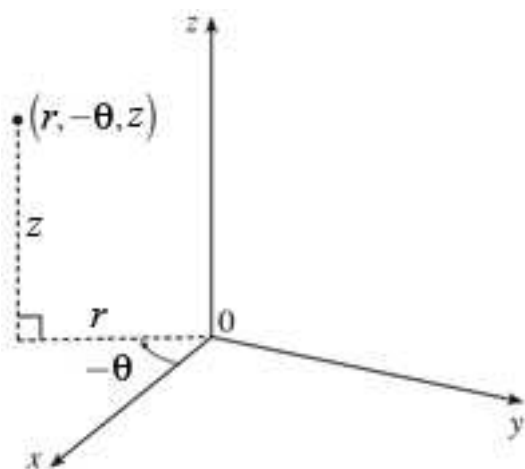


- (a)  $x = 3 \cos(\pi/2) = 0$ ,  $y = 3 \sin(\pi/2) = 3$ ,  $z = 3$ , so the point is  $(0, 3, 3)$  in rectangular coordinates.



$$\begin{aligned} \text{Assume } r &= 3 \\ \theta &= \pi/2 \\ z &= 3 \end{aligned}$$

- (b)  $x = \cos(-\pi/3) = \frac{1}{2}$ ,  $y = \sin(-\pi/3) = -\frac{1}{2}\sqrt{3}$ , and  $z = 1$ , so the point is  $(\frac{1}{2}, -\frac{1}{2}\sqrt{3}, 1)$  in rectangular coordinates.



$$\begin{aligned} \text{Assume } r &= 1 \\ \theta &= -\pi/3 \\ z &= 1 \end{aligned}$$