

2. We convert 5000 revolutions per minute to revolutions per second by dividing by 60, because there are 60 seconds to a minute

$$(5000 \text{ rev / min}) (1 \text{ min / 60 s}) = 83.33 \text{ rev / s}$$

We know that one revolution is equal to 2π radians, so we simply multiply by 2π to get rad / s.

$$(83.33 \text{ rev / s}) (2\pi \text{ rad / rev}) = (83.33) (6.2832) \text{ rad / s} = 523.6 \text{ rad / s}$$