

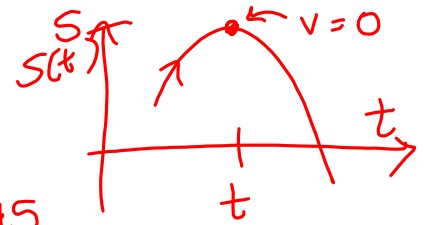
$$a(t) = \frac{dv}{dt} = -32$$

$$\int dv = \int -32 dt$$

$$\frac{ds}{dt} = v(t) = -32t + 45$$

$$\int ds = \int (-32t + 45) dt$$

$$s(t) = -16t^2 + 45t + S_0$$



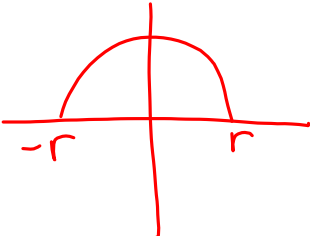
$$0 = -32t + 45$$

$$t = \frac{45}{32}$$

$$\sum_{i=1}^n \frac{6i^3 - 4i}{n^4} = \frac{6 \cdot n^{\frac{1}{2}} \cdot (n+1)^2}{n^4 \cdot 4} - \frac{4 \cdot n(n+1)}{n^4 \cdot n^3 \cdot 2} \cdot \frac{2}{2}$$

$$= \frac{(n+1) \cdot [6n(n+1) - 8]}{4n^3}$$

$$\begin{aligned}
\sum_{k=1}^n \frac{24k(k-1)}{n^9} &= \frac{24}{n^9} \sum k^2 - \frac{24}{n^9} \sum k \\
&= \frac{\cancel{24}^4 \cdot n(n+1)(2n+1)}{n^{\cancel{9}8} \cdot \cancel{6}} - \frac{\cancel{24}^{12} \cdot n(n+1)}{n^{\cancel{9}8} \cdot \cancel{2}} \\
&= \frac{4(2n^2+3n+1)}{n^8} - \frac{12(n+1)}{n^8} = \frac{\cancel{8n^2} + \cancel{12n} + 4 - \cancel{12n} - 12}{n^8} \\
&= \frac{8n^2 - 8}{n^8} = \frac{8n^2}{n^8} - \frac{8}{n^8} = \frac{8}{n^6} - \frac{8}{n^8}
\end{aligned}$$

$\sqrt{r^2 - x^2}$ is 

$-\sqrt{r^2 - x^2}$ is 