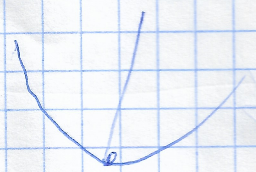
Мамиа

1. $x(t) = 18\cos(314t + \pi/6)$

$\nu = 50\,Hz$, $\omega = 2\pi\nu = 314$ рад/с

2



$x = A\sin(4\pi t + \varphi)$

$v = 4\pi A\cos(4\pi t + \varphi)$

$a = -16\pi^2 A\sin(4\pi t + \varphi)$

3. $x(t) = 10\sin(\frac{2}{5}\pi t + \varphi)$

1) $v(t) = 4\pi\cos(\frac{2}{5}\pi + \varphi)$

$v_{max} = 4\pi \approx 12.6$ см/с

2) $a(t) = -\frac{8}{5}\pi^2\sin(\frac{2}{5}\pi + \varphi)$

$a_{max} = \frac{8}{5}\pi^2 \approx 15.8$ см/с²