

$$8. \quad y = \frac{3}{2} \cos\left(\frac{\pi}{2}x\right) + \frac{5}{2}$$

$$= \frac{3}{2} \cos\left(\frac{\pi}{2}x\right) + \frac{5}{2}$$

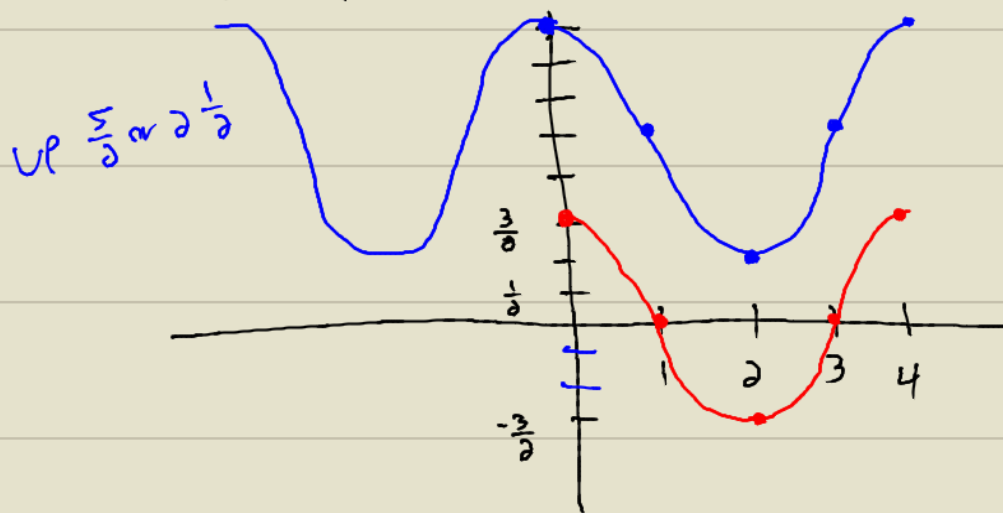
$$\frac{3}{2} + \frac{5}{2} = \frac{8}{2} \text{ or } 4$$

$$|a| = \left|\frac{3}{2}\right| = \frac{3}{2} \quad \text{or } \frac{3}{2} \left(2 \cdot \frac{1}{2}\right)$$

$$P = \frac{2\pi}{b} = \frac{2\pi}{\frac{\pi}{2}} = 2\pi \cdot \frac{2}{\pi} = 4$$

$$-\frac{3}{2} + \frac{5}{2} = \frac{2}{2} \text{ or } 1$$

	X	$y = \frac{3}{2} \cos\left(\frac{\pi}{2}x\right)$
ZERO	0	$\frac{3}{2} \cos\left(\frac{\pi}{2} \cdot 0\right) = \frac{3}{2} \cos(0) = \frac{3}{2}(1) = \frac{3}{2}$
$\frac{1}{4}$ PERIOD	1	$\frac{3}{2} \cos\left(\frac{\pi}{2} \cdot 1\right) = \frac{3}{2} \cos\left(\frac{\pi}{2}\right) = \frac{3}{2}(0) = 0$
$\frac{1}{2}$ PERIOD	2	$\frac{3}{2} \cos\left(\frac{\pi}{2} \cdot 2\right) = \frac{3}{2} \cos(\pi) = \frac{3}{2}(-1) = -\frac{3}{2}$
$\frac{3}{4}$ PERIOD	3	$\frac{3}{2} \cos\left(\frac{\pi}{2} \cdot 3\right) = \frac{3}{2} \cos\left(\frac{3\pi}{2}\right) = \frac{3}{2}(0) = 0$
PERIOD	4	$\frac{3}{2} \cos\left(\frac{\pi}{2} \cdot 4\right) = \frac{3}{2} \cos(2\pi) = \frac{3}{2}(1) = \frac{3}{2}$



$$D: (-\infty, \infty)$$

$$R: [1, 4]$$