Q1. If arg(z) < 0 then arg(-z) - arg(z)

(a)
$$\pi$$
 mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo

(b)
$$\frac{1}{2\pi}$$
 mathongo $\frac{1}{2\pi}$ mathongo

(c)
$$-\frac{\pi}{2}$$
 mathongo ///. mathongo ///. mathongo ///. mathongo ///.

(d)
$$\frac{\pi}{2}$$
 mathongo ///. mathongo ///. mathongo ///. mathongo ///.

Q2. Let z, w be two complex numbers such that
$$\overline{z} + i\overline{\omega} = 0$$
 & $\arg(z\omega) = \pi$ then $\arg(z)$

(a)
$$3\pi/4$$
 athongo ///. mathongo ///. mathongo ///. mathongo ///.

(b)
$$\pi/2$$
 nathongo ///. mathongo ///. mathongo ///. mathongo ///.

(c)
$$\pi/4$$
 mathongo ///. mathongo ///. mathongo ///. mathongo ///.

(d)
$$5\pi/4$$
 mathongo /// mathongo /// mathongo /// mathongo /// mathongo ///

Q3. If
$$z_1$$
 & z_2 are two complex numbers such that $|z_1| = |z_2| + |z_1 - z_2|$ then $\arg(z_1) - \arg(z_2)$

(b)
$$\pi/2$$
 nathongo /// mathongo /// mathongo /// mathongo ///

(c)
$$-\pi/2$$
 athongo /// mathongo /// mathongo /// mathongo ///

Q4. If
$$z = x + iy$$
 is a variable complex number such that $\arg\left(\frac{z-1}{z+1}\right) = \frac{\pi}{4}$

(b)
$$x^2 + y^2 - 2x - 1 = 0$$

(c)
$$x^2 + y^2 - 2y - 1 = 0$$

(d) $x^2 + y^2 + 2x - 1 = 0$