(1)[5 points] Solve for x:

$$|2x-1| = 4$$

$2x-1 = 4$, $2x-1 = -4$

$2x = 5$, $2x = -3$

$x = \frac{5}{2}$, $x = -\frac{3}{2}$

$\therefore \quad x = \frac{5}{2}, -\frac{3}{2}$

(2)[5 points] Solve for x:

$$\left|\frac{4x-1}{-3}\right| < 2$$

$$-2 < \frac{4x-1}{-3} < 2$$

$$6 > 4x-1 > -6$$

$$-6 < 4x-1 < 6$$

$$-5 < 4x < 7$$

$$-\frac{5}{4} < x < \frac{7}{4} \quad \text{or} \quad \left(-\frac{5}{4}, \frac{7}{4}\right)$$

(3)[5 points] Find all points with x-coordinate 6 which are a distance $\sqrt{85}$ from the point $(-1, 2)$.

Let $(6, y)$ be the point.

$$\therefore \sqrt{(6-(-1))^2 + (y-2)^2} = \sqrt{85}$$

$$7^2 + (y-2)^2 = 85$$

$$(y-2)^2 = 36$$

$$y - 2 = \pm 6$$

$$y = 2 \pm 6$$

$$y = 8, -4$$

$\therefore$ the points are $(6, 8)$ & $(6, -4)$.