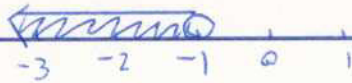


Question 1

a) $\sqrt{\frac{153}{87}} = 1.33.$

b) $|x+3| < 2.$ $|x+3| = 2.$

$x = -1$ $x < -1.$



c) $x^2 - 2x - 8 = 0.$

$= (x-4)(x+2).$

$x = 4$ $x = -2.$

d) $3 + \frac{1}{x}.$ $3+1 = x$

$x = 4.$

e) $\frac{x}{x^2-4} + \frac{2}{x-2} = \frac{(2(x^2-4) + x(x-2))}{(x^2-4)(x-2)}$

$= \frac{2x^2 - 8 + x^2 - 2x}{(x^2-4)(x-2)}$

$= \frac{x^2(x-2) - 4(x-2)}{(x^2-4)(x-2)}$

$= \frac{3x^2 - 2x - 8}{(x^2-4)(x-2)}$

$= \frac{x^3 - 2x^2 - 4x + 8}{(x^2-4)(x-2)}$

$= \frac{x^2}{x^3 - 2x} = \frac{x^2}{x(x^2 - 2)}$



$$\begin{aligned} \text{f)} \quad & \$979 \div 110 \times 100 \\ & = \$890 \end{aligned}$$