

$$\begin{aligned} \text{a)} \quad & \sqrt{\frac{9 + 144}{231 - 144}} \\ & = \sqrt{\frac{153}{87}} \end{aligned}$$

$$= 1.33$$

$$\text{b)} \quad |x+3| < 2$$

$$x+3 < 2 \quad \text{or} \quad -x-3 < 2$$

$$x < -1$$

$$-x < 5$$

$$x > -5$$

$$\text{---} -5 < x < -1$$

$$\text{c)} \quad x^2 - 2x - 8 = 0$$

$$(x+2)(x-4) = 0$$

$$x = -2 \quad \text{or} \quad x = 4$$

$$\text{d)} \quad \int 3 + \frac{1}{x} \cdot dx$$

$$= \int 3 + x^{-1} \cdot dx$$

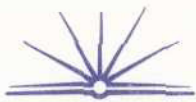
$$= 3x + \ln x + C$$

$$\text{e)} \quad \frac{x}{x^2-4} + \frac{2}{x-2}$$

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



PTO.



e) cont.

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

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

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

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

$$x^3 - 2x^2 - 4x + 8$$

f) \$979 inc. 10% tax? Orig. price?

$$979 \times \frac{100}{110}$$

= \$890 is the original price.