Solving Rational Equations

Example: Solve the following rational equation:

$$\frac{x-2}{x-3}=0$$

Be sure to state any restrictions on the value of *x*.

$$\frac{x-2}{x-3}=0, \quad x\neq 3$$

$$(x-3)\frac{x-2}{x-3}=0(x-3)$$

$$x-2=0$$

$$\boxed{x=2}$$

(Be sure to check that this solution is not a restricted value!)

You try!

1) Solve the following rational equations:

a) $\frac{x+3}{x-4}=\frac{x-1}{x+2}$

b) $\frac{5}{x+7}=0$

2) Vizzini bought a case of Dark Side of the Moon concert T-shirts for $450. He kept two T-shirts for himself and sold the rest for $560, making a profit of $10 on each T-shirt. How many T-shirts were in the case?