Problem of the Week Problem E Three Items Only

Three-Item-Menu is a restaurant thats sells only hamburgers, french fries, and soft drinks.

One day, exactly 120 customers made a purchase. Half of the customers purchased at least a hamburger, $\frac{1}{4}$ of the customers purchased at least french fries, but $\frac{1}{3}$ of the customers purchased only a soft drink. Of the customers who bought a hamburger, $\frac{4}{5}$ of them bought at least one other item.

How many customers purchased a hamburger and soft drink but not french fries?

