While grocery shopping, Terry has a way to approximate the total cost of his purchases. He simply approximates that each item will cost $3.00.

One day, Terry purchased 20 items. He purchased items that each had an actual cost of either $1.00, $3.00, or $7.50. Exactly seven of the purchased items had an actual cost of $3.00. If the total actual cost of the 20 items was the same as the total approximated cost, how many items had an actual cost of $7.50?