

Ex 1 Jamaal manages a grocery store that carries two brands of cat food, a local brand obtained at the cost of 30 cents per can and a national brand obtained for 40 cents per can. He estimates that if the local brand is sold for x cents per can and the national brand for y cents per can, then approximately $70 - 5x + 4y$ cans of the local brand and $80 + 6x - 7y$ cans of the national brand will be sold each day. How should Jamaal price each brand to maximize total daily profit from the sale of cat food?