

March 22nd

3 green, 2 red and 1 bad weighs 390g.
2 green, 3 red and 1 bad weighs 340g.
1 green, 2 red and 3 bad weighs 260g.

What does a basket of each type weigh?

$$3g + 2r + 1b = 390 \quad (1)$$

$$2g + 3r + 1b = 340 \quad (2)$$

$$1g + 2r + 3b = 260 \quad (3)$$

(1)-(2) gives

$$g - r = 50 \quad (4)$$

(2) \times 3 - (3) gives

$$5g + 7r = 760 \quad (5)$$

(4) \times 7 + (5) gives

$$12g = 1110$$

Hence $g = 92.5$ grams

Basket of Green weighs 92.5 grams

Therefore $r = 42.5$ grams

Basket of Red weighs 42.5 grams

And $b = 27.5$ grams

Basket of Bad weighs 27.5 grams