

## Answer on Question #47669 – Math – Calculus

1. There are 3 parcels, X, Y and Z, at the post office. The average mass of Parcel X, Parcel Y and Parcel Z is 27.4 kg. The mass of Parcel Y is trice that of Parcel Z. Parcel X is 3.2 kg lighter than Parcel Y. Find the average mass of Parcel Y and Parcel Z.

### Solution.

To solve this problem, we must construct an equation. Let mass of parcel Z is  $m$ , then mass of parcel Y will be  $3m$  and mass of parcel X will be  $(3m - 3.2)$ . Now we can write an equation:

$$\frac{(3m-3.2)+3m+m}{3} = 27.4,$$

$$7m - 3.2 = 82.2,$$

$$m = 12.2.$$

Hence, the mass of parcel Z is 12.2 kg, then the mass of parcel of Y is  $3 \cdot 12.2 = 36.6$  kg. And now we can find the average mass of parcel Y and parcel Z:

$$\frac{12.2+36.6}{2} = 24.4.$$

### Answer:

The average mass of parcel Y and parcel Z is 24.4 kg.