

\*THE TOTAL WEIGHT OF ALL 100 PEARLS ABOVE IS  $(99 \cdot 11) + (1 \cdot 3) = 1,089 + 3 = 1,092$  GRAMS.  
 SO, THE AVERAGE WEIGHT OF THE 100 PEARLS IS  $\frac{1092}{100} = 10 \frac{92}{100} = 10.92$  GRAMS.

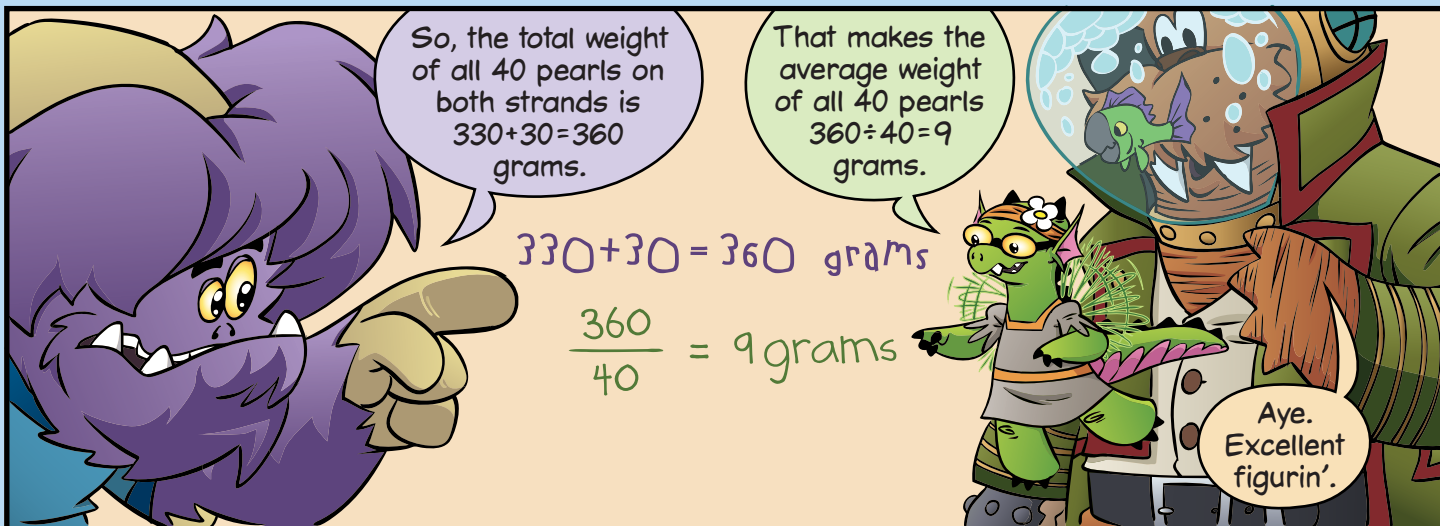






Each of the 30 pearls on this strand weighs 11 grams, so their total weight is  $30 \cdot 11 = 330$  grams.

And each of the 10 pearls on this strand weighs 3 grams, for a total weight of  $10 \cdot 3 = 30$  grams.



So, the total weight of all 40 pearls on both strands is  $330 + 30 = 360$  grams.

That makes the average weight of all 40 pearls  $360 \div 40 = 9$  grams.

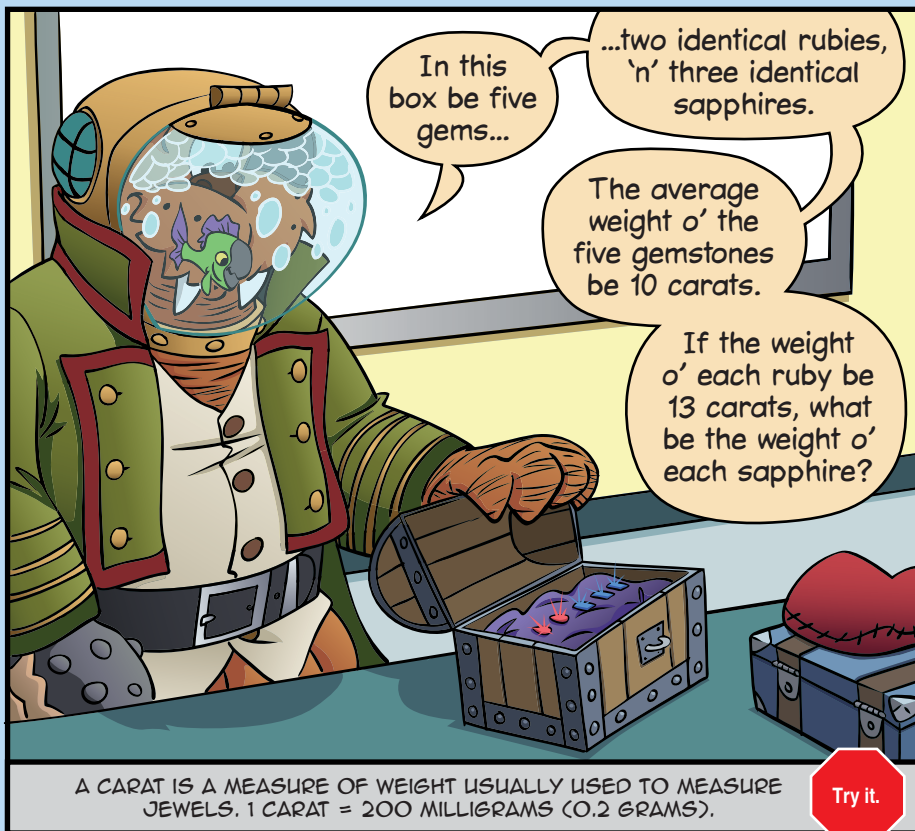
$$330 + 30 = 360 \text{ grams}$$

$$\frac{360}{40} = 9 \text{ grams}$$

Aye. Excellent figurin'.



What's in here?



In this box be five gems...

...two identical rubies, 'n' three identical sapphires.

The average weight o' the five gemstones be 10 carats.

If the weight o' each ruby be 13 carats, what be the weight o' each sapphire?

A CARAT IS A MEASURE OF WEIGHT USUALLY USED TO MEASURE JEWELS. 1 CARAT = 200 MILLIGRAMS (0.2 GRAMS).





I looked at the **differences** between the gemstones and the average.

The rubies are each 3 carats larger than the average.

There are 2 of them, so they are a total of  $2 \cdot 3 = 6$  carats **above** the average.

So, the sapphires need to be a total of 6 carats **below** the average.

+3   +3   +6

-6



So, each of the 3 sapphires has to be  $6 \div 3 = 2$  carats below the average.

That's  $10 - 2 = 8$  carats each.

13    13    8    8    8

+3    +3    -2    -2    -2

+6    -6

Aye. 'Tis a fine method.

Each o' the sapphires be 8 carats in weight.

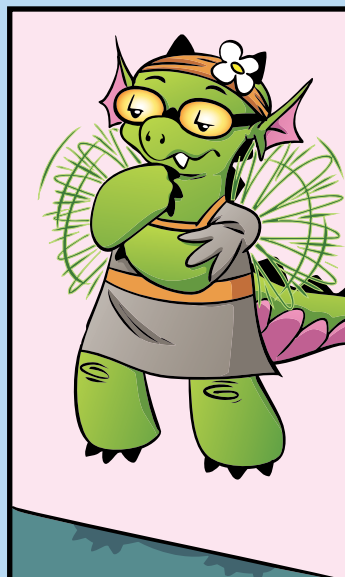
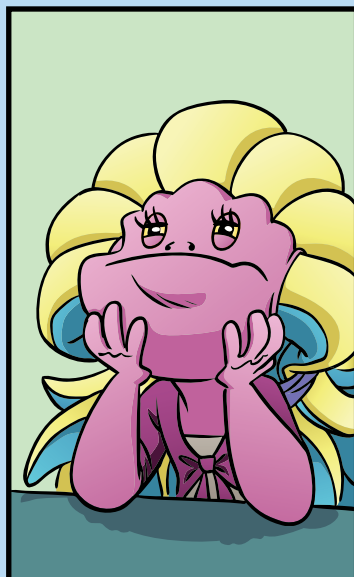
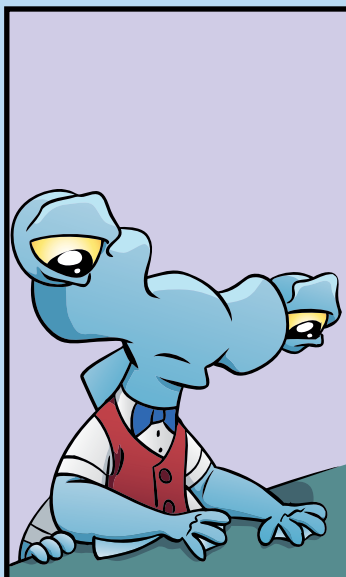
Let's look at one more treasure.

In this satchel be a number o' coins.

One o' the coins be worth \$50. The rest be worth \$5 each.

The average value o' the coins be \$8. How many coins be there in this satchel?

*One coin be worth \$50.  
All others be \$5 each.  
The average value o' the coins be \$8.*



Scratch  
Scratch

How many coins are in Captain Kraken's satchel?