

Let's Recycle

Andy collects plastic bottles, soda cans, and paper bags for recycling. The recycling machine will give change back (in cents). The rates appear below.



$$6p = \text{cents}$$



$$4s = \text{cents}$$



$$3b = \text{cents}$$

Letter p represents the number of plastic bottles he puts in.

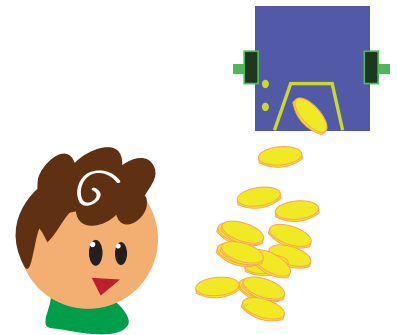
Letter s represents the number of soda cans he puts in.

Letter b represents the number of paper bags he puts in.

On Monday, Andy put 10 plastic bottles, 4 soda cans, and 5 paper bags into the machine. Find the total amount of change Andy will get if he puts these items in the machine.

- Change earned from the plastic bottles = $6p$, where $p = 10$
 $6(10) = 60$ cents, or \$0.60
- Change earned from soda cans = $4s$, where $s = 4$
 $4(4) = 16$ cents, or \$0.16
- Change earned from the paper bags = $3b$, where $b = 5$
 $3(5) = 15$ cents, or \$0.15

Andy gets $60 + 16 + 15 = 91$ cents (\$0.91) from the recycling machine.



Directions: Answer these questions using the formulas above.

1. On Wednesday, Andy put in 8 plastic bottles, 12 soda cans, and 7 paper bags into the machine. How much money did he earn on Wednesday?

$$6(8) = 48 \text{ cents}$$

$$4(12) = 48 \text{ cents}$$

$$3(7) = 21 \text{ cents}$$

$$48 + 48 + 21 = 117 \text{ cents, or } \$1.17$$

2. On Friday, Andy put in 25 plastic bottles, 18 soda cans, and 9 paper bags into the machine. How much money did he earn on Friday?

$$6(25) = 150 \text{ cents}$$

$$4(18) = 72 \text{ cents}$$

$$3(9) = 27 \text{ cents}$$

$$150 + 72 + 27 = 249 \text{ cents, or } \$2.49$$

3. How much total money did Andy get on Wednesday and Friday?

$$\$1.17 + \$2.49 = \$3.66$$