

10. Santos is 3 years older than one-third Wanda's age. In 4 years, Wanda will be twice the age that Santos will be then. How old is each now? [I, 7]

Solution:

Let Wanda's present age be: $\blacktriangle\blacktriangle\blacktriangle$

Then, Santos' age now is: \blacktriangle $\boxed{3}$

Santos' age 4 years from now is: \blacktriangle $\boxed{7}$

$$\begin{array}{ccccccc} \blacktriangle & \blacktriangle & \blacktriangle & \boxed{4} & + & \blacktriangle & \boxed{7} & \blacktriangle & \boxed{7} \\ \hline \end{array}$$

$$\blacktriangle = 10$$

Answer: Wanda is 30; Santos is 13. Check: $34 = 34$.

11. Rosa is three times as old as Juan. Five times Juan's age, diminished by Rosa's age, is 16. How old is each? [I, 5]

Solution:

Let Juan's age be: \blacktriangle

Then, Rosa's age is: $\blacktriangle\blacktriangle\blacktriangle$

Five times Juan's age is: $\blacktriangle\blacktriangle\blacktriangle\blacktriangle\blacktriangle$

Five times Juan's age diminished by Rosa's age is: $\blacktriangle\blacktriangle$

$$\begin{array}{ccccccc} \blacktriangle & \blacktriangle & + & \boxed{10} & \boxed{6} \\ \hline \end{array}$$

$$\blacktriangle = 8$$

Answer: Juan is 8; Rosa is 24. Check: $16 = 16$.

12. Charlie is twice as old as James. Three times Charlie's age, diminished by twice James' age, will give James' age 3 years from now. How old is each? [I, 4]

Solution:

Let James's age be: \blacktriangle

Then, Charlie's age is: $\blacktriangle\blacktriangle$

Three times Charlie's age is: $\blacktriangle\blacktriangle\blacktriangle\blacktriangle\blacktriangle\blacktriangle\blacktriangle$

Two times James' age is: $\blacktriangle\blacktriangle$

$$\begin{array}{ccccccc} \blacktriangle & \blacktriangle & \blacktriangle & \blacktriangle & \blacktriangle & \blacktriangle & \blacktriangle & + & \boxed{3} & \blacktriangle \\ \hline \end{array}$$

$$\blacktriangle = 1$$

Answer: James is 1; Charlie is 2. Check: $4 = 4$.