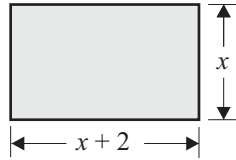


Name: \_\_\_\_\_

1. A farmer owns a rectangular-shaped farm. She knows that the length is 2 km longer than the width and the perimeter is 16 km. Find  $x$ , the width of her farm.



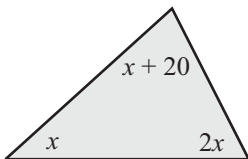

2. A grandfather set this puzzle for his three grandchildren.  
"If you add your three ages, the total is one-half of what my age was 5 years ago."  
(a) If the children's ages are 8, 10 and 12 years, write an equation to fit the information in the puzzle above. Use  $x$  as the grandfather's age.

$$\frac{x - 5}{2} =$$

- (b) Solve the equation to find grandfather's age.

$$x =$$

3. Solve for  $x$ .




4. Four teenagers have CD collections. Naomi has twice as many in her collection as Julian. Greg has 6 CDs less than Julian. Adele has 3 more than Julian.

- (a) If Julian has  $n$  CDs, write expressions for the number owned by each of the other three people.

Naomi

Greg

Adele

- (b) If they have a total of 77 CDs between them, how many does each person have?

Julian

Naomi

Greg

Adele

5. Ms. I. N. Stine set her Year 9 science class a puzzle to find the capacity of two different sized containers. She gave this information to her class:

*It requires 15 litres of water to completely fill containers A and B.*

*Container A holds 3 litres more than container B.*

Find the capacity of container A and container B.

Container A

Container B