

4. Solve each equation.

a)  $3x + 4 = 1$

b)  $5 + 2x = 3$

c)  $-3x + 4 = 7$

d)  $2 - 5x = 17$

e)  $7 = 3x + 13$

f)  $-3x - 5 = 4$

g)  $24 = -3x - 6$

h)  $-5 + 4x = -21$

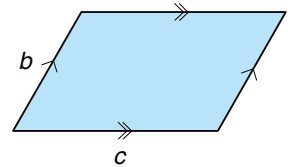
5. Choose 3 equations in question 4. Check your solutions.

6. An equation for the perimeter of a parallelogram is  $P = 2b + 2c$ .

a) Determine  $P$  when  $b = 5$  cm and  $c = 7$  cm.

b) Determine  $c$  when  $P = 36$  cm and  $b = 8$  cm

c) Determine  $b$  when  $P = 54$  cm and  $c = 12$  cm.



7. **Assessment Focus** In Canada, temperature is measured in degrees Celsius,  $C$ .

In the United States, temperature is measured in degrees Fahrenheit,  $F$ .

The equation  $9C = 5F - 160$  is used to convert between the two temperature scales.

a) What is  $30^\circ\text{C}$  in degrees Fahrenheit?

b) What is  $14^\circ\text{F}$  in degrees Celsius?

Explain your work.

8. An empty tanker truck has a mass of 14 000 kg.

One barrel of oil has a mass of 180 kg.

The equation  $M = 14\,000 + 180b$  represents the total mass of the truck,  $M$  kilograms, when it contains  $b$  barrels of oil.

The truck enters a weigh station that shows its total mass is 51 080 kg.

How many barrels of oil are on the truck?

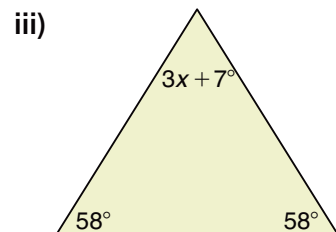
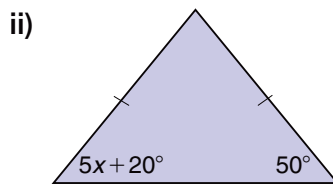
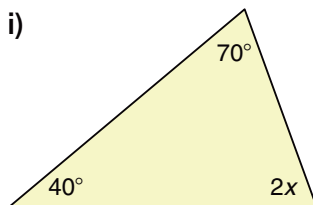
How do you know?



9. **Take It Further** In each figure:

a) Write an equation to relate the given measures.

b) Solve the equation.



### In Your Own Words

Choose one equation you solved in this section.

Explain how you solved it.

Show how to check the solution.