

Name:

Date:

Thinking with Models _ Quadratic Equations

Assessment Criterion: A and C

1. Solve $x^2 + 5x + 6 = 0$

2. Victor is y years old.

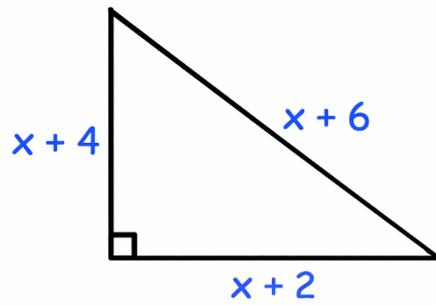
His brother Fred is **4 years older** than Victor.

The product of their ages is **780**.

(a) Write an equation in terms of y to represent this situation.

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

3. The diagram shows a right-angled triangle.



(a) Form a quadratic equation in terms of x .

(b) Solve the equation to find the value of x .

4.

Solve $\frac{25}{m+3} = m+3$