

ALGEBRA: PROBLEM SOLVING

Name: _____

Date: _____

INSTRUCTIONS: Read each question carefully. Answer ALL questions in the spaces provided.

PLEASE DO NOT use spaces when entering your answers.

1. Translate each of the following statements into expressions

- a. A number, p , plus seven _____
- b. The difference between a number, q , and twelve _____
- c. The product of a number, x , and ten _____
- d. A number, y , increased by fourteen. _____
- e. A number, m , divided by six. _____
- f. I think of a number, g , multiplied it by 4, then added 9. _____
- g. Three times a number, k , plus two. _____

SHORT ANSWERS

PLEASE DO NOT use spaces when entering your answers.

2. Jason thinks of a number, x , multiplies it by 3 then adds 15. The result is 27.

(a) Write down an **equation** to represent Jason's thought.

(b) Solve the equation to find x .

$$x = \underline{\hspace{2cm}}$$

3. June is x years old. Andrew is 6 times as old as June.

(a) Write an expression to show Andrew's age.

(b) The sum of their ages is 35.

(i) Write an equation to show this information.

(ii) Solve this equation to find x .

$$x = \underline{\hspace{2cm}}$$

(ii) Use the information above to identify:

- June's age June = _____ years
- Andrew's age. Andrew = _____ years