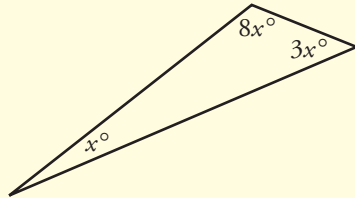


 chapter 10 review

1. (a) Solve the equation $4(x - 3) = 12$.
- (b) Solve the equation $5(x - 7) - 5 = 4(x - 3) - 9$ and check the solution.
- (c) x is a number. A second number is 4 greater than x .
- Write down the second number in terms of x .
 - When twice the second number is added to three times the first number, the result is 58. Write an equation in x to represent this information.
 - Solve your equation for x and state what the two numbers are. Verify your answer.
2. (a) Solve the equation $5(2x - 7) = 5$.
- (b) (i) Write $\frac{x+2}{3} - \frac{x-3}{5}$ as a single fraction and give your answer in its simplest form.
- (ii) If $\frac{x+2}{3} - \frac{x-3}{5} = \frac{3}{5}$ solve for x .
- (c) x is a number. A second number is 5 times greater than x .
- Write down the second number in terms of x .
 - When 3 is taken from the second number and then added to four times the first number, the result is 33. Write an equation in x to represent this information.
 - Solve your equation for x and state what the two numbers are. Verify your answer.
3. (a) Solve the equation $\frac{3x}{2} = 9$.
- (b) Solve the equation $3(x - 6) - 4(x - 3) = 8(x + 4) - 2$ and check the solution.
- (c) Niamh is ten years older than Sharon.
- Write an expression, in terms of x , for Niamh's age.
 - Three years from now the sum of their ages will be 60. Find both their ages.

4. (a) Solve the equation $\frac{4x}{2} - \frac{x}{3} = 5$.

(b) The three angles of the triangle sum to 180° .



(i) Write an expression, in terms of x , for the sum of the angles.

(ii) Find the value of x and verify your solution.

(c) Peter and Paul ran for election to the student council. Paul got 7 votes less than Peter. Half of Paul's votes and one-third of Peter's votes added together gave 14 votes.

How many votes did each receive?

5. (a) Solve the equation $5(2x - 3) - 4(x - 7) = 37$.

(b) (i) Write $\frac{2x-3}{4} - \frac{x-7}{5}$ as a single fraction and give your answer in its simplest form.

(ii) If $\frac{2x-3}{4} - \frac{x-7}{5} = \frac{1}{2}$ solve for x .

(c) Tom bought bread, cheese and ham. The ham was double the price of the cheese and the bread was 10 cent cheaper than the cheese. The total bill was €2.10.

By letting x equal the price of the cheese, find the cost of each item.

6. (a) Solve the equation $20 = 6(x - 3) - 4(x - 2)$.

(b) (i) Write $\frac{x-3}{2} - \frac{x-6}{4} + \frac{x+1}{3}$ as a single fraction and give your answer in its simplest form.

(ii) If $\frac{x-3}{2} - \frac{x-6}{4} + \frac{x+1}{3} = \frac{3}{2}$ solve for x .

- (c) ✎ A teacher gave five students cards with the following expressions typed on them:

x	$2x + 4$	$2x + 8$	$2x + 2$	$-(x + 2)$
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The students were asked to find the value for x when given the following clues:

- x is a positive whole number.
- When twice the smallest card value is taken from the largest card value, the result is the same as the sum of the values on the remaining cards.

What is the value of x ?