

Name:

Teacher
Assessment



Section A Solving Simple Linear Equations Grade F / E

1. (a) Solve the equation $5x = 35$

.....

Answer $x =$

(1)

(b) Solve the equation $x - 7 = 35$

.....

.....

Answer $x =$

(1)

(Total 2 marks)

2. Solve the equations.

(a) $3x = 21$

.....

Answer $x =$

(1)

(b) $y - 2 = 9$

.....

.....

Answer $y =$

(1)

(c) $4z - 1 = 9$

.....

.....

.....

Answer $z =$

(2)

(Total 4 marks)

3. (a) Solve $4x = 12$

.....

Answer $x =$

(1)

(b) Solve $y + 7 = 11$

.....

Answer $y =$

(1)
(Total 2 marks)

4. Solve the equations

(a) $3x = 12$

.....

Answer $x =$

(1)

(b) $y + 7 = 13$

.....

Answer $y =$

(1)

(c) $8z - 5 = 11$

.....

.....

Answer $z =$

(2)
(Total 4 marks)

5. Solve the equation $4y - 5 = 11$

.....

.....

Answer $y =$

(Total 2 marks)

6. (a) Simplify $4c - c + 2c$

.....

Answer

(1)

(b) Solve the equations

(i) $2x = 24$

.....
.....

Answer $x =$

(1)

(ii) $y - 9 = 11$

.....
.....

Answer $y =$

(1)

(iii) $\frac{z}{4} = 8$

.....
.....

Answer $z =$

(1)

(iv) $4w + 3 = 13$

.....
.....

Answer $w =$

(2)

(Total 6 marks)

7. Complete the following table.

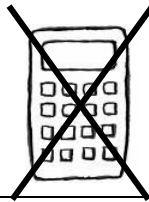
.....
.....

$x = 8$	$3x = 24$
$y = \dots\dots$	$4y = 20$
$3z = 12$	$5z = \dots\dots\dots$

(Total 3 marks)

Success:

Target:



Section B Equations with Brackets and Fractions Grade D / C

1. Solve the equation $3(w - 2) = 9$

.....
.....
.....
.....

Answer $w =$

(Total 3 marks)

2. Solve these equations.

(i) $\frac{x}{3} = 5$

.....

Answer $x =$

(1)

(ii) $2(3y - 5) = 20$

.....
.....

Answer $y =$

(3)

(Total 4 marks)

3. Solve these equations.

(a) $\frac{q}{3} = -4$

.....

Answer $q =$

(2)

(b) $2(x + 3) = 11$

.....
.....

Answer $x =$

(3)

(Total 5 marks)

4. Solve this equation $\frac{12-y}{3} = 5$

.....
.....
.....
.....

Answer $y =$

(Total 3 marks)

5. Solve the equation $7(2t + 1) = 35$

.....
.....
.....

Answer $t =$

(Total 3 marks)

6. Solve the following equations

(a) $\frac{z+4}{2} = 11$

.....
.....
.....

Answer $z =$

(Total 2 marks)

7. Solve the following equations.

(a) $4(y - 3) = 18$

.....
.....
.....

Answer $y =$

(Total 3 marks)

8. Solve the equations

(a) $\frac{20}{x} = 4$

.....
.....
.....

Answer $x =$

(2)

(b) $\frac{y}{3} + 5 = 9$

.....
.....
.....

Answer $y =$

(2)

(Total 4 marks)

9. Solve the equation $\frac{23 - 2x}{5} = 3$

.....
.....
.....
.....

Answer $x =$

(Total 3 marks)

10. Solve the equation $\frac{17 - y}{3} = 4.5$

.....
.....
.....

Answer $y =$

(Total 3 marks)

11. Solve the equation $3(w - 2) = 9$

.....
.....
.....
.....

Answer $w =$

(Total 3 marks)

Success:

Target:



Section C Equations with Unknowns on Both Sides Grade D / C

1. Solve the equation $7z - 3 = 6 + z$

.....
.....
.....

Answer $z =$

(Total 3 marks)

2. Solve the equation $3t + 4 = 19 - 2t$

.....
.....
.....
.....
.....

Answer $t =$

(Total 3 marks)

3. Solve the equation $4y + 7 = 2 - y$

.....
.....
.....

Answer $y =$

(Total 3 marks)

4. Solve the equations.

(a) $7t - 3 = 6 + t$

.....
.....
.....

Answer $t =$

(3)

(b) $5x - 1 = 3(x + 2)$

.....
.....
.....

Answer $x =$

(3)
(Total 6 marks)

5. Solve the equation $5x + 4 = 3x + 7$

.....
.....
.....
.....
.....

Answer $x =$

(Total 3 marks)

6. Solve the equation $6y + 7 = 14y$

.....
.....

Answer $y =$

(Total 2 marks)

7. Solve the following equation $2x - 3 = 5x + 6$

.....
.....
.....
.....

Answer $x =$

(Total 3 marks)

8. Solve the equation $7s + 2 = 5s + 3$

.....
.....
.....

Answer $s =$

(Total 3 marks)

9. Solve the equations

(a) $3w + 4 = 19 - 2w$

.....
.....
.....

Answer $w =$

(3)

(b) $4(y + 3) = 9(y - 2)$

.....
.....
.....

Answer $y =$

(3)

(Total 6 marks)

10. Solve the equation $2(x + 5) = 7 - 4x$

.....
.....
.....

Answer $x =$

(Total 3 marks)

11. Solve the equation $5y + 11 = 3(y + 7)$

.....
.....
.....

Answer $y =$

(Total 3 marks)

12. Solve $3(x - 2) = 5x - 5$

.....
.....
.....

Answer $x =$

(Total 3 marks)

13. Solve the equation $4(z - 1) = 2(z + 3)$

.....
.....
.....

Answer $z =$

(Total 3 marks)

14. (a) Expand and simplify $2(3x - 2) + 4(x + 5)$

.....
.....
.....

Answer

(2)

(b) Solve the equation $2(3x - 2) + 4(x + 5) = 4(x - 2)$

.....
.....
.....
.....
.....

Answer $x =$

(3)

(Total 5 marks)

Success:

Target:



Section D **Forming and Solving Equations** **Grade C**

1. Ali is x cm tall.

(a) Suki is 5 cm taller than Ali.

Write down an expression in x for Suki's height.

.....

Answer cm

(1)

(b) Ali's sister is 2 cm shorter than Ali.

Write down an expression in x for the height of Ali's sister.

.....

Answer cm

(1)

(c) Ali's father is twice as tall as Ali.

Write down an expression in x for the height of Ali's father.

.....

Answer cm

(1)

(Total 3 marks)

2. Kris is x years old.

Jodie is 5 years younger than Kris.

Their combined ages add up to 41 years.

Form an equation in x and solve it to find Kris's age.

.....

.....

.....

.....

Answer.....years

(Total 3 marks)

3. Meg's lucky number is x .

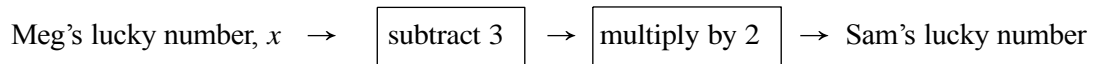
- (a) Tim's lucky number is 1 more than Meg's lucky number.
Write down an expression for Tim's lucky number in terms of x .

Answer (1)

- (b) Jenny's lucky number is double Meg's lucky number.
Write down an expression for Jenny's lucky number in terms of x .

Answer (1)

- (c) This flow diagram shows how Sam's lucky number is connected to Meg's lucky number.



Write down an expression for Sam's lucky number in terms of x .

.....
.....

Answer (2)
(Total 4 marks)

4. The students in class 10W measure their hand spans.

- (a) Juan's hand span is x cm.
George's hand span is 1 cm longer.

Write down an expression for George's hand span, in terms of x .

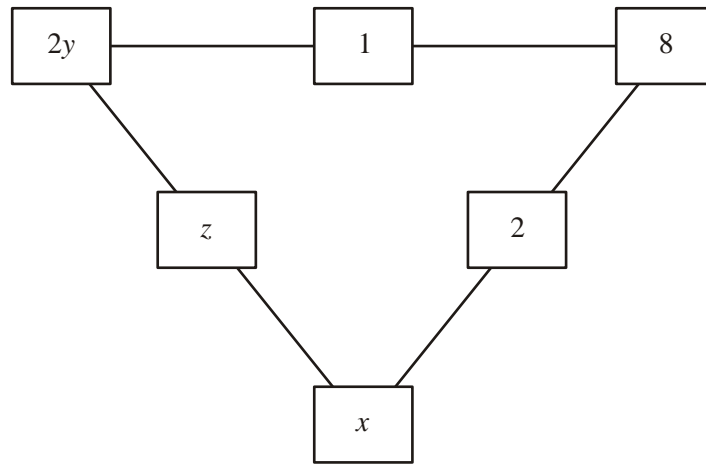
Answer cm (1)

- (b) Vicky's hand span is y cm.
Emma's hand span is 2 cm shorter.

Write down an expression for Emma's hand span, in terms of y .

Answer cm (1)
(Total 2 marks)

5. The total for the three numbers along each side of the triangle is 17.



Find the values of x , y and z .

.....

.....

.....

.....

.....

.....

.....

Answer $x =$

$y =$

$z =$

(Total 4 marks)

6. There are p seats in a standard class coach and q seats in a first class coach.

A train has 5 standard class coaches and 2 first class coaches.

Write down an expression in terms of p and q for the number of seats in the train.

.....

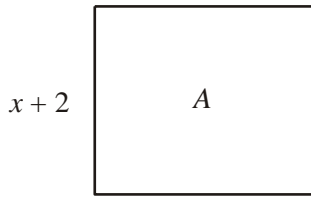
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Answer

(2)

(Total 5 marks)

7. Rectangle A has length $(2x - 1)$ cm and width $(x + 2)$ cm.



$2x - 1$

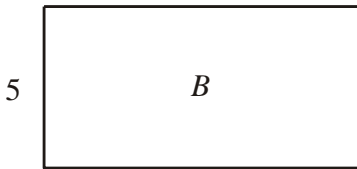
Not drawn accurately

- (a) Show that the perimeter of rectangle A is $(6x + 2)$ cm.

.....
.....

(1)

- (b) Rectangle B has length $(x - 1)$ cm and width 5 cm.



$x - 1$

Not drawn accurately

The perimeter of rectangle A is equal to the perimeter of rectangle B .
Write down and solve an equation in x .

.....
.....
.....

Answer $x =$

(4)

- (c) Find the **area** of rectangle A .

.....
.....
.....

Answer cm^2

(2)

(Total 7 marks)

Success:

Target: