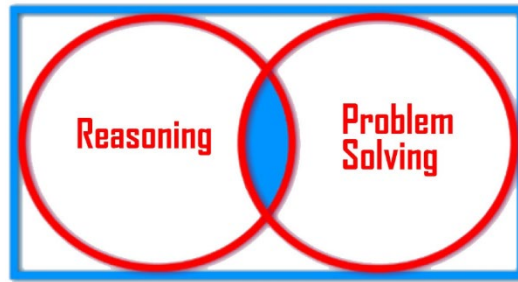


GCSE Foundation (5 – 1)

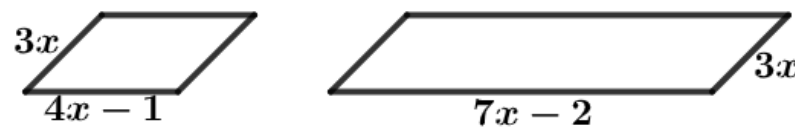



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Mathematical Reasoning Questions

(Expressions) – Set 1

**The marks shown are for guidance purposes only
[Total marks: 25 Marks]**

<p>1</p>	<p>Answer True or False</p> <p>a) $6xy = 2x \times 3y$ b) $20ab = 40ab \div 2$ c) $20ab = 40 \div 2ab$</p> <p style="text-align: right;">[3Marks]</p>
<p>2</p>	<p>If $a = 5$ which of the following will be equivalent to $-6a$</p> <p>a) -65 b) $-65a$ c) -30 d) $-30a$</p> <p style="text-align: right;">[1Mark]</p>
<p>3</p>	<p>Here are two parallelograms</p> <div style="text-align: center;">  </div> <p>The two shapes are put together to form the new shape shown below</p> <div style="text-align: center;">  </div> <p>Write down an expression for the perimeter of the new shape.</p> <p style="text-align: right;">[3Marks]</p>

4 Simplify the expression $0.5x + 0.65y + 6x + 3y$?



Choose one answer

- a) $6.5x + 0.95y$
- b) $6.5x + 3.65y$
- c) $10.55xy$
- d) $6.5x + 0.68y$

[2Marks]

5 Simplify the expression $x(2y + z) + 2(xy + 3z)$

Choose one answer

- a) $2xy + xz + 2xy + 6z$
- b) $4xy + xz + 6z$
- c) $4yx + zx + 5z$
- d) $4xy + xz + 5xz$

[2Marks]

- 6 John is x years old.
Laila is 15 years older than John
Lucy is 3 years younger than Laila
What is Lucy's age in terms of x ?
Choose one answer
- a) $x + 18$
 - b) $x + 12$
 - c) $x - 18$
 - d) $x - 12$

[2Marks]

- 7 Here are two sets of Expressions.
Match the Expressions in **Set A** to the equivalent Expression in **Set B**

Set A	Set B
$5ab + ab + 6ba$	$2b + 8a$
$2(4a + b)$	$-7b + 2a$
$ab - ab - ab$	$12ab$
$2(a - b) - 5b$	$-ab$

[4Marks]

8 Given that $2x = -14$ which of the following will be equal to the value of the expression $6x + 5$?

Choose one answer

- a) -30
- b) -37
- c) -47
- d) 47

[2Marks]

9 Choose the expression which is the same as 13 greater than $2x$
Circle all the correct answers

- a) $13 < 2x$
- b) $13 + 2x$
- c) $2x + 13$
- d) $x + 7.5$

[2Marks]

10 The prices for different items at a supermarket are shown below



Item	Price
Smints	$£(x + 1)$
Wine Gums	$£(2x - 3)$
Crisps	$£(x - 2)$
Cola	$£4x$

a) Write an expression for the total cost of all the items in the list
[2Marks]

b) Tamara bought all the items but Smints.
She paid with a £5 note.
Write down an expression for the change she received.

[2Marks]