

Spot the Mistake Solutions

Display an incorrect solution or statement.

Learners identify the error. correct it and explain it.

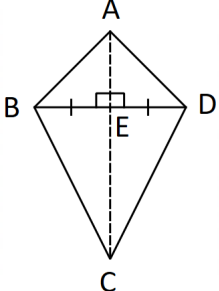
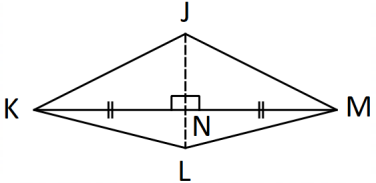
Arithmetic Examples

	Spot the error	Corrected statement	Explanation
1.	$2 \times 3^2 = 6^2 = 36$	$2 \times 3^2 = 2 \times 9 = 18$	simply exponents first, then multiply
2.	$12 - 2 \times 4 = 40$	$12 - 2 \times 4 = 12 - 8 = 4$	multiply first, then subtract
3.	$4 \times 3 + 2 \times 5 = 100$	$4 \times 3 + 2 \times 5 = 12 + 10 = 22$	multiplication first, then add

Algebraic Equation Examples

Only one of the solutions below is correct. Identify the correct solution and spot the error(s) in each of the other solutions.			
A	$\frac{2x-1}{3} - \frac{x-1}{2} = 1$ $\therefore \frac{2(2x-1)}{6} - \frac{3(x-1)}{6} = 1$ $\therefore 4x - 2 - 3x + 3 = 1$ $\therefore x + 1 = 1$ $\therefore x = 0$	B	$\frac{2x-1}{3} - \frac{x-1}{2} = 1$ $\therefore \frac{2(2x-1)}{6} - \frac{3(x-1)}{6} = 1$ $\therefore 4x - 1 - 3x - 1 = 1$ $\therefore x - 2 = 1$ $\therefore x = 3$
C	$\frac{2x-1}{3} - \frac{x-1}{2} = 1$ $\therefore \frac{2(2x-1)}{6} - \frac{3(x-1)}{6} = \frac{6}{6}$ $\therefore 4x - 2 - 3x + 3 = 6$ $\therefore x + 1 = 6$ $\therefore x = 5$	D	$\frac{2x-1}{3} - \frac{x-1}{2} = 1$ $\therefore \frac{2(2x-1)}{6} - \frac{3(x-1)}{6} = 1$ $\therefore 4x - 2 - 3x - 3 = 1$ $\therefore x - 5 = 1$ $\therefore x = 6$
E	$\frac{2x-1}{3} - \frac{x-1}{2} = 1$ $\therefore \frac{2(2x-1) - 3(x-1)}{6} = \frac{6}{6}$ $\therefore 4x - 4 - 3x + 3 = 6$ $\therefore x - 1 = 6$ $\therefore x = 7$	F	$\frac{2x-1}{3} - \frac{x-1}{2} = 1$ $\therefore \frac{2(2x-1)}{6} - \frac{3(x-1)}{6} = \frac{6}{6}$ $\therefore 4x - 2 - 3x - 3 = 6$ $\therefore x - 5 = 6$ $\therefore x = 11$
A	The constant terms was not multiplied by 6.		
B	Two errors		
	- the constant term was not multiplied by 6 $-3(x-1) \neq -3x-1$ (-1 should be $+3$)		
C	Correct solution		
D	Two errors w		
	- the constant term was not multiplied by 6 $-3(x-1) \neq -3x-3$ (-3 should be $+3$)		
E	$2(2x-1) \neq 4x-4$ (-4 should be -2)		
F	$-3(x-1) \neq -3x-1$ (-3 should be $+3$)		

Geometry Examples

	Spot the error	Corrected statement	Explanation
1.	A quadrilateral with four equal sides is a square.	A quadrilateral with four equal sides is a rhombus . or A quadrilateral with four equal sides and a right angle , is a square.	The rhombus is only as square if it has a right angle.
2.	The angles in a quadrilateral add up to 180° .	The angles in a triangle add up to 180° or The angles in a quadrilateral add up to 360°	In a quadrilateral, one diagonal divides the quadrilateral into two triangles, each with an angle sum of 180° .
3.	The diagonals of a kite bisect each other at right angles.	One of the diagonals of a kite bisects the other diagonal at right angles. - AC and BD are diagonals of kite ABCD - symmetry line AC is longer than BD  - JL and KM are diagonals of kite JKLM - symmetry line JL is shorter than KM  or The diagonals of a rhombus bisect each other at right angles. The diagonals of a square bisect each other at right angles.	A rhombus and a square are the only quadrilaterals that have two diagonals bisecting each other at right angles. Learners can visualise the properties of the diagonals by folding the shapes along their diagonals. - a square can be folded into 4 congruent triangles - a rhombus can be folded into 4 congruent triangles A kite can only be folded to form congruent triangles.
4.	A scalene triangle has two equal sides.	An isosceles triangle has two equal sides. or A scalene triangle has no equal sides.	Scalene triangles have three unequal sides and angles. Isosceles triangles have two equal sides, positioned opposite equal angles. Equilateral triangles have three equal sides, and three equal angles of 60° .