

Homework/Extension

Step 10: Find Pairs of Values 2

National Curriculum Objectives:

Mathematics Year 6: (6A5) [Enumerate possibilities of combinations of two variables](#)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Match the pairs of values to the equations. Involves multiples of one or more unknown, using all four operations and whole numbers less than 20.

Expected Match the pairs of values to the equations. Involves multiples of one or more unknown, using all four operations and whole numbers.

Greater Depth Match the pairs of values to the equations. Involves multiples of one or more unknown using all four operations, whole numbers, fractions, decimals and negative numbers.

Questions 2, 5 and 8 (Varied Fluency)

Developing Identify pairs of values which satisfy the equation given. Involves multiples of one or more unknown, using all four operations and whole numbers less than 20.

Expected Identify pairs of values which satisfy the equation given. Involves multiples of one or more unknown, using all four operations and whole numbers.

Greater Depth Identify pairs of values which satisfy the equation given. Involves multiples of one or more unknown using all four operations, whole numbers, fractions, decimals and negative numbers.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

Developing Identify and explain the errors made in the given values for the statement by finding a pattern. Involves multiples of one or more unknown, using all four operations and whole numbers less than 20.

Expected Identify and explain the errors made in the given values for the statement by finding a pattern. Involves multiples of one or more unknown, using all four operations and whole numbers.

Greater Depth Identify and explain the errors made in the given values for the statement by finding a pattern. Involves multiples of one or more unknown using all four operations, whole numbers, fractions, decimals and negative numbers.

More [Year 6 Algebra](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Find Pairs of Values 2

1. Match the pairs of values to the equations to make them correct.

$$3b - 3 = a$$

$$a = 18 \text{ and } b = 7$$

$$2b + 4 = a$$

$$a = 10 \text{ and } b = 5$$

$$4b \div 2 = a$$

$$a = 15 \text{ and } b = 6$$



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2. Fill in the blanks below to find pairs of values which satisfy the equation.

$$4b - 6 = a$$

$$a = \square \quad b = \square$$

$$a = \square \quad b = \square$$

$$a = \square \quad b = \square$$

$$a = \square \quad b = \square$$

$$a = \square \quad b = \square$$



VF
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3. Stephan has found pairs of values for a and b to make the following statement true.

a	b
2	3
4	1
10	5
7	8
9	2

$$2a + b > 2b + a$$

Stephan has made some errors.
Identify and explain his errors.



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Find Pairs of Values 2

4. Match the pairs of values to the equations to make them correct.

$$2b + 6 = a$$

$$a = 11 \text{ and } b = 38$$

$$6b - 4 = a$$

$$a = 66 \text{ and } b = 30$$

$$3a + 5 = b$$

$$a = 68 \text{ and } b = 12$$



VF
HW/Ext

5. Fill in the blanks below to find pairs of values which satisfy the equation.

$$3b \div 5 = a$$

$$a = \square \quad b = \square$$

$$a = \square \quad b = \square$$

$$a = \square \quad b = \square$$

$$a = \square \quad b = \square$$

$$a = \square \quad b = \square$$



VF
HW/Ext

6. James has found pairs of values for a and b to make the following statement true.

a	b
2	10
9	4
6	5
11	12
16	20

$$2a + b < 4b - a$$

James has made some errors.
Identify and explain his errors.



RPS
HW/Ext

Find Pairs of Values 2

7. Match the pairs of values to the equations to make them correct.

$$4b - 3.5 = a$$

$$a = -24 \text{ and } b = -12$$

$$3b + 12 = a$$

$$a = 14.5 \text{ and } b = 4.5$$

$$7a - 9.5 = b$$

$$a = 2.5 \text{ and } b = 8$$



VF
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8. Fill in the blanks below to find pairs of values which satisfy the equation.

$$7b \times 0.5 = a$$

$$a = \square \quad b = \square$$

$$a = \square \quad b = \square$$

$$a = \square \quad b = \square$$

$$a = \square \quad b = \square$$

$$a = \square \quad b = \square$$



VF
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9. Lilian has found pairs of values for a and b to make the following statement true.

a	b
3	4.5
2.5	6
4	3.25
8.25	12
7.5	5.75

$$2a + \frac{3}{4} < \frac{1}{4} + 2b$$

Lilian has made some errors.
Identify and explain her errors.

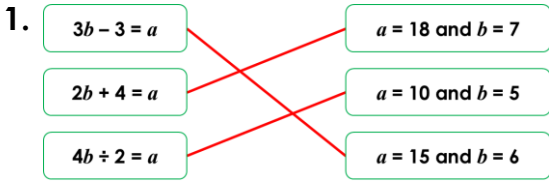


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Find Pairs of Values 2

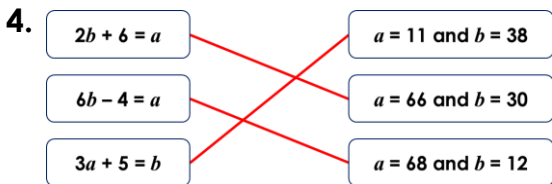
Developing



2. Various answers, for example: $a = 2, b = 2$; $a = 6, b = 3$; $a = 10, b = 4$; $a = 14, b = 5$; $a = 18, b = 6$

3. The pairs $a = 2$ and $b = 3$, and $a = 7$ and $b = 8$ are incorrect. This is because a needs to be greater than b to satisfy the statement.

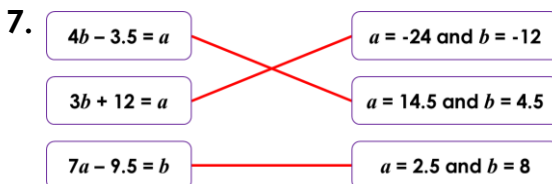
Expected



5. Various answers, for example: $a = 3, b = 5$; $a = 6, b = 10$; $a = 9, b = 15$; $a = 12, b = 20$; $a = 15, b = 25$

6. The pairs $a = 9$ and $b = 4$, and $a = 6$ and $b = 5$ are incorrect. This is because b needs to be greater than a for the statement to work.

Greater Depth



8. Various answers, for example: $a = 3.5, b = 1$; $a = 7, b = 2$; $a = 10.5, b = 3$; $a = 14, b = 4$; $a = 17.5, b = 5$

9. The pairs $a = 4$ and $b = 3.25$ and $a = 7.5$ and $b = 5.25$ are incorrect. This is because b needs to be greater than a for the statement to work.