

Homework/Extension

Step 10: Common Multiples

National Curriculum Objectives:

Mathematics Year 6: (6C5) [Identify common factors, common multiples and prime numbers](#)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Sort the multiples of two numbers into the Venn diagram. Includes multiples up to 12 x 12 and multiplication grids to support.

Expected Sort the multiples of two numbers into the Venn diagram. Includes multiples up to and beyond 12 x 12 and partially completed multiplication grids to support.

Greater Depth Sort the multiples of two numbers into the Venn diagram. Includes multiples up to and beyond 12 x 12, and decimal numbers using known times table and number facts i.e. 25 and 12.5. No multiplication grids to support. Includes numbers which do not fit the Venn.

Questions 2, 5 and 8 (Varied Fluency)

Developing Find the common multiples for two numbers. Includes multiples up to 12 x 12 and multiplication grids to support.

Expected Complete the sequences of common multiples. Includes multiples up to and beyond 12 x 12 and partially completed multiplication grids to support.

Greater Depth Complete the sequences of common multiples. Includes multiples up to and beyond 12 x 12, and decimal numbers using known times table and number facts i.e. 25 and 12.5. No multiplication grids to support.

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

Developing Explain which multiple is the odd one out. Includes multiples up to 12 x 12 and multiplication grids to support.

Expected Explain which pair of numbers is the odd one out. Includes multiples up to and beyond 12 x 12 and partially completed multiplication grids to support.

Greater Depth Explain which pair of numbers is the odd one out. Includes multiples up to and beyond 12 x 12, and decimal numbers using known times table and number facts i.e. 25 and 12.5. No multiplication grids to support.

More [Year 6 Four Operations](#) resources.

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

Common Multiples

1. Use the multiplication facts to sort the multiples into the Venn diagram.

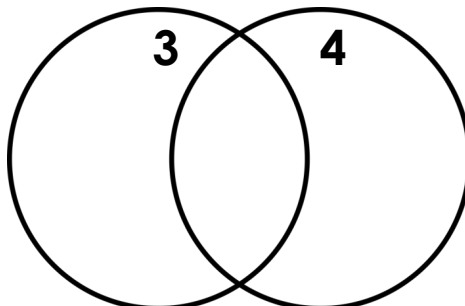
Key Facts

$3 \times 1 = 3$
 $3 \times 2 = 6$
 $3 \times 3 = 9$
 $3 \times 4 = 12$
 $3 \times 5 = 15$
 $3 \times 6 = 18$
 $3 \times 7 = 21$
 $3 \times 8 = 24$
 $3 \times 9 = 27$
 $3 \times 10 = 30$
 $3 \times 11 = 33$
 $3 \times 12 = 36$

36
32
9
27
8
24
12
15
16

Key Facts

$4 \times 1 = 4$
 $4 \times 2 = 8$
 $4 \times 3 = 12$
 $4 \times 4 = 16$
 $4 \times 5 = 20$
 $4 \times 6 = 24$
 $4 \times 7 = 28$
 $4 \times 8 = 32$
 $4 \times 9 = 36$
 $4 \times 10 = 40$
 $4 \times 11 = 44$
 $4 \times 12 = 48$



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2. Use the multiplication facts to find 6 common multiples of 6 and 12.

Key Facts

$6 \times 1 = 6$
 $6 \times 2 = 12$
 $6 \times 3 = 18$
 $6 \times 4 = 24$
 $6 \times 5 = 30$
 $6 \times 6 = 36$
 $6 \times 7 = 42$
 $6 \times 8 = 48$
 $6 \times 9 = 54$
 $6 \times 10 = 60$
 $6 \times 11 = 66$
 $6 \times 12 = 72$

Key Facts

$12 \times 1 = 12$
 $12 \times 2 = 24$
 $12 \times 3 = 36$
 $12 \times 4 = 48$
 $12 \times 5 = 60$
 $12 \times 6 = 72$
 $12 \times 7 = 84$
 $12 \times 8 = 96$
 $12 \times 9 = 108$
 $12 \times 10 = 120$
 $12 \times 11 = 132$
 $12 \times 12 = 144$



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3. Which common multiple of 2 and 5 is the odd one out? Convince me.

Key Facts

$5 \times 1 = 5$
 $5 \times 2 = 10$
 $5 \times 3 = 15$
 $5 \times 4 = 20$
 $5 \times 5 = 25$
 $5 \times 6 = 30$
 $5 \times 7 = 35$
 $5 \times 8 = 40$
 $5 \times 9 = 45$
 $5 \times 10 = 50$
 $5 \times 11 = 55$
 $5 \times 12 = 60$

20 10 14

Key Facts

$2 \times 1 = 2$
 $2 \times 2 = 4$
 $2 \times 3 = 6$
 $2 \times 4 = 8$
 $2 \times 5 = 10$
 $2 \times 6 = 12$
 $2 \times 7 = 14$
 $2 \times 8 = 16$
 $2 \times 9 = 18$
 $2 \times 10 = 20$
 $2 \times 11 = 22$
 $2 \times 12 = 24$



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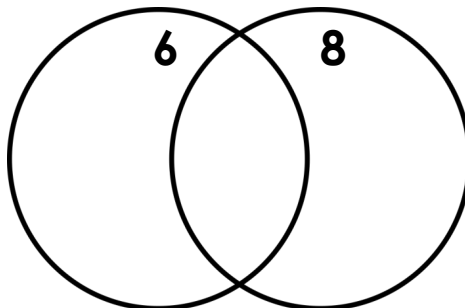
Common Multiples

4. Use the multiplication facts to sort the multiples into the Venn diagram.

56 12 48
42 24 96
18 72 32

Key Facts
 $6 \times 1 = 6$
 $6 \times 2 = 12$
 $6 \times 5 = 30$
 $6 \times 10 = 60$
 $6 \times 12 = 72$

Key Facts
 $8 \times 1 = 8$
 $8 \times 2 = 16$
 $8 \times 5 = 40$
 $8 \times 10 = 80$
 $8 \times 12 = 96$



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5. Use the multiplication facts to continue the sequences of common multiples.

Key Facts
 $9 \times 1 = 9$
 $9 \times 2 = 18$
 $9 \times 5 = 45$
 $9 \times 10 = 90$
 $9 \times 12 = 108$

9 and 12: 36

Key Facts
 $4 \times 1 = 4$
 $4 \times 2 = 8$
 $4 \times 5 = 20$
 $4 \times 10 = 40$
 $4 \times 12 = 48$

Key Facts
 $12 \times 1 = 12$
 $12 \times 2 = 24$
 $12 \times 5 = 60$
 $12 \times 10 = 120$
 $12 \times 12 = 144$

4 and 7: 28

Key Facts
 $7 \times 1 = 7$
 $7 \times 2 = 14$
 $7 \times 5 = 35$
 $7 \times 10 = 70$
 $7 \times 12 = 84$



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6. Which is the odd one out? Convince me.

Key Facts
 $4 \times 1 = 4$
 $4 \times 2 = 8$
 $4 \times 5 = 20$
 $4 \times 10 = 40$
 $4 \times 12 = 48$

4 and 11

126

Key Facts
 $7 \times 1 = 7$
 $7 \times 2 = 14$
 $7 \times 5 = 35$
 $7 \times 10 = 70$
 $7 \times 12 = 84$

5 and 6

Key Facts
 $11 \times 1 = 11$
 $11 \times 2 = 22$
 $11 \times 5 = 55$
 $11 \times 10 = 110$
 $11 \times 12 = 132$

132

7 and 9

Key Facts
 $9 \times 1 = 9$
 $9 \times 2 = 18$
 $9 \times 5 = 45$
 $9 \times 10 = 90$
 $9 \times 12 = 108$

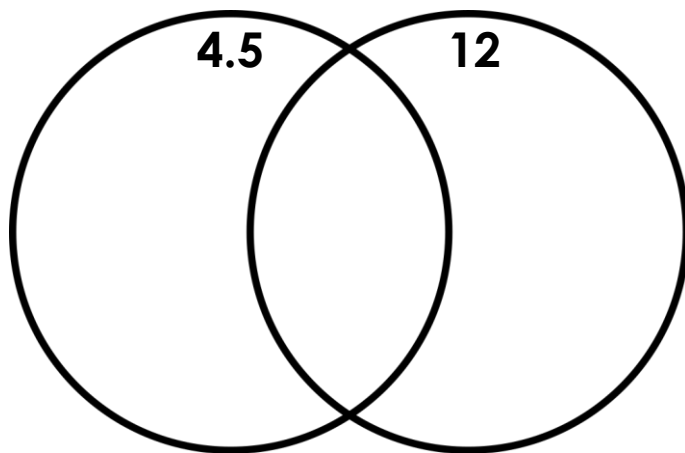


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Common Multiples

7. Sort the multiples into the Venn diagram.

153	84	192
288	90	56
156	108	144



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8. Continue the sequences of common multiples below.

25 and 12.5:

25

6 and 7:

42

8 and 5:

80



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9. Which is the odd one out? Convince me.

4.5 and 9

91

7 and 3.5

135

5.5 and 11

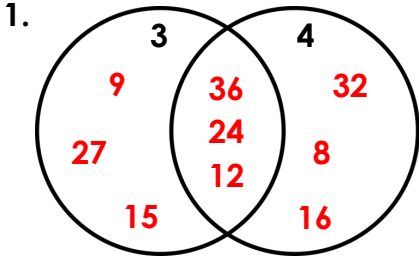


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Common Multiples

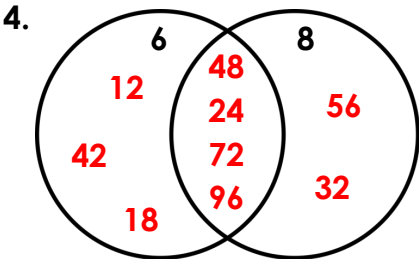
Developing



2. Various answers, for example: 12, 24, 36, 48, 60, 72.

3. 14 is the odd one out because it is not a common multiple of 2 and 5. It is only a multiple of 2.

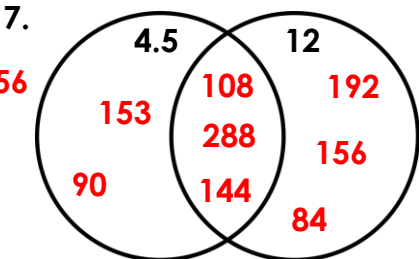
Expected



5. 9 and 12 – 72, 108, 144; 4 and 7 – 56, 84, 112

6. 5 and 6 is the odd one out because it does not have a matching common multiple. The common multiple of 4 and 11 is 132. The common multiple of 7 and 9 is 126.

Greater Depth



8. 25 and 12.5 – 50, 75, 100; 6 and 7 – 84, 126, 168; 5 and 8 – 120, 160, 200.

9. 5.5 and 11 is the odd one out because it does not have a matching common multiple. The common multiple of 4.5 and 9 is 135. The common multiple of 7 and 3.5 is 91.