

Homework/Extension

Step 9: Common Factors

National Curriculum Objectives:

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

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Match the pairs of numbers with their common factor using knowledge of the 2, 3, 4, 5 and 10 times tables.

Expected Match the pairs of numbers with their common factor using knowledge of the times tables up to 12.

Greater Depth Match the pairs of numbers with their common factor using knowledge of known times tables factors beyond 12.

Questions 2, 5 and 8 (Varied Fluency)

Developing Identify if the statements about common factors are true or false using knowledge of the 2, 3, 4, 5 and 10 times tables.

Expected Identify if the statements about common factors are true or false using knowledge of the times tables up to 12.

Greater Depth Identify if the statements about common factors are true or false using knowledge of known times tables factors beyond 12.

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

Developing Explain which statement about common factors is correct using knowledge of the 2, 3, 4, 5 and 10 times tables.

Expected Explain which statement about common factors is correct using knowledge of the times tables up to 12.

Greater Depth Explain which statement about common factors is correct using knowledge of known times tables factors beyond 12.

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

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Common Factors

1. Match the pairs of numbers to their common factor.

6 and 9

5

30 and 20

3

8 and 12

4

15 and 10

10



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2. Are the statements below true or false?

- A. 5 is the highest common factor of 40 and 50.
- B. 2 is a common factor of 14 and 18.
- C. The highest common factor of 8 and 20 is 2.
- D. A common factor of 12 and 15 is 3.
- E. 16 and 28 share the common factor 4.



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3. Who is correct? Prove it.



Lily

30 and 35 have 5
common factors.

30 and 35 have 2
common factors.



Max



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Common Factors

4. Match the pairs of numbers to their common factor.

45 and 63

12

56 and 96

7

36 and 84

9

49 and 77

8



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HW/Ext

5. Are the statements below true or false?

- A. 7 is the highest common factor of 42 and 48.
- B. 9 is a common factor of 27 and 36.
- C. The highest common factor of 72 and 60 is 6.
- D. A common factor of 18 and 24 is 8.
- E. 40 and 64 share the common factor 8.



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6. Who is correct? Prove it.



Ellie

54 and 48 have 4
common factors.

54 and 48 have 3
common factors.



Jacob



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HW/Ext

Common Factors

7. Match the pairs of numbers to their common factor.

52 and 65

15

90 and 75

16

54 and 72

13

80 and 64

18



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8. Are the statements below true or false?

- A. 7 is the highest common factor of 42 and 28.
- B. 17 is a common factor of 85 and 102.
- C. The highest common factor of 76 and 95 is 18.
- D. A common factor of 108 and 84 is 12.
- E. 84 and 63 share the common factor 21.



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9. Who is correct? Prove it.



Anya

51 and 102 have 4
common factors.

51 and 102 have 2
common factors.



Scott



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Homework/Extension

Common Factors

Developing

1. 3, 10, 4, 5
2. A – False, the highest common factor of 40 and 50 is 10; B – True; C – False, the highest common factor of 8 and 20 is 4; D – True. E – True
3. Max is correct because the common factors of 30 and 35 are 1 and 5.

Expected

4. 9, 8, 12, 7
5. A – False, 6 is the highest common factor of 42 and 48; B. True; C – False, the highest common factor of 72 and 60 is 12; D – False, 8 is not a factor of 18; E – True
6. Ellie is correct because the common factors of 54 and 48 are 1, 2, 3 and 6.

Greater Depth

7. 13, 15, 18, 16
8. A – False, 14 is the highest common factor of 42 and 28; B – True; C – False, the highest common factor of 76 and 95 is 19; D – True; E – True
9. Anya is correct because the common factors of 51 and 102 are 1, 3, 17 and 51.