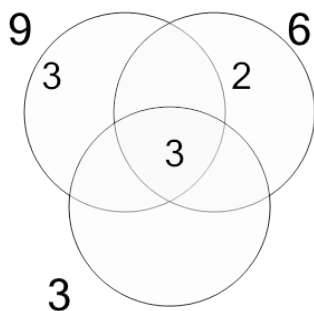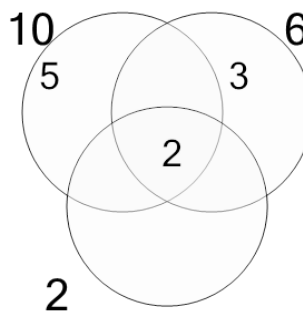# mobius

# Factoring - Venn Diagrams - 3 Numbers - Populated Venn to Shared Factors

**1** Use the factor diagram to find the shared prime factors of these numbers (in the center)
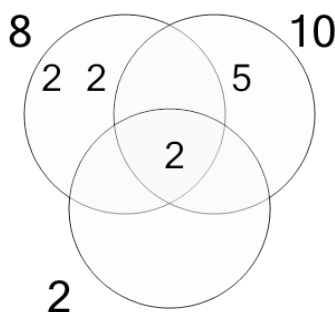
9    6
3    2
3
3

| A | B |
|---|---|
| {3, 5, 2} | {3, 2} |
| C | D |
| {7, 4, 5} | {3} |
| E | F |
| {3, 6, 4} | {6, 3, 6} |

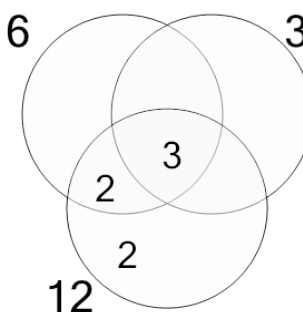**2** Use the factor diagram to find the shared prime factors of these numbers (in the center)

10    6
5    3
2
2

| A | {5} |
|---|---|
| B | {2} |
| C | {2, 7, 6, 4, 7} |
| D | {6} |
| E | {4, 2, 3} |
| F | {3} |

**3** Use the factor diagram to find the shared prime factors of these numbers (in the center)

8    10
2  2    5
2
2

| A | {5, 5, 6} |
|---|---|
| B | {7, 3, 4} |
| C | {2} |
| D | {7} |
| E | {6, 4, 2, 2} |
| F | {6, 5, 7} |

**4** Use the factor diagram to find the shared prime factors of these numbers (in the center)

6    3
3
2
2
12

| A | {4, 5, 4} |
|---|---|
| B | {3, 7, 4} |
| C | {2, 2, 5, 5} |
| D | {3} |
| E | {6, 2, 4, 5} |
| F | {6, 5, 5} |

**5** Use the factor diagram to find the shared prime factors of these numbers (in the center)

12    8
2    2
2
3
6
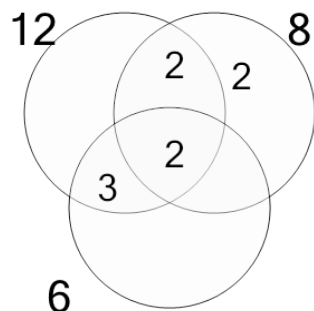
| A | {2, 3, 2, 2} |
|---|---|
| B | {2, 6, 5, 6, 6} |
| C | {2} |
| D | {3} |
| E | {2, 2} |
| F | {2, 5} |

**6** Use the factor diagram to find the shared prime factors of these numbers (in the center)

8    4
2    2
2
3
6
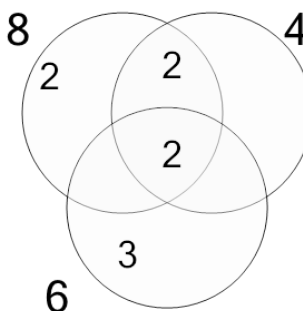
| A | {2} |
|---|---|
| B | {2, 4, 3, 6, 7} |
| C | {2, 5, 5, 5} |
| D | {3} |
| E | {2, 3} |
| F | {2, 6, 6} |

**7** Use the factor diagram to find the shared prime factors of these numbers (in the center)

10    2
5
2
3
6
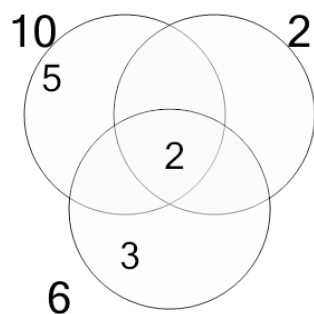
| A | {2, 3, 3, 3, 7} |
|---|---|
| B | {5, 3, 4} |
| C | {2, 2} |
| D | {3, 2, 7} |
| E | {2} |
| F | {4, 6, 4, 3} |

**8** Use the factor diagram to find the shared prime factors of these numbers (in the center)

2    4
2
2
5
10
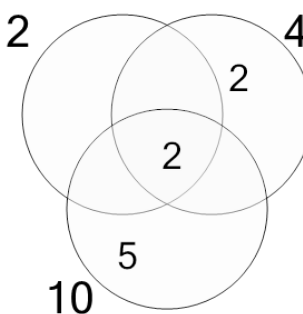
| A | {2, 2} |
|---|---|
| B | {2, 4} |
| C | {2, 2, 3} |
| D | {2, 3, 6, 7, 7} |
| E | {2} |
| F | {2, 5, 3, 6} |

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