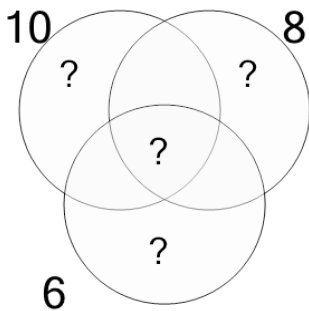# Factoring - Venn Diagrams - 3 Numbers - To Shared Factors
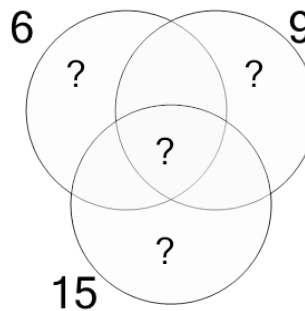
Name _____

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

10 ? ? 8 ? ? 6
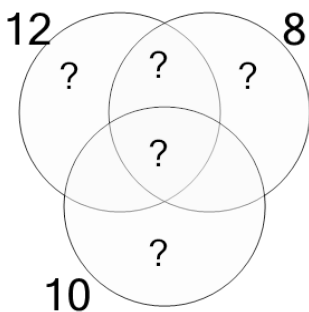
A	{2}
B	{2, 2, 2, 4, 4}
C	{3, 7, 6, 5}
D	{7, 7, 5, 6}
E	{2, 7, 4, 7, 2}
F	{2, 6}

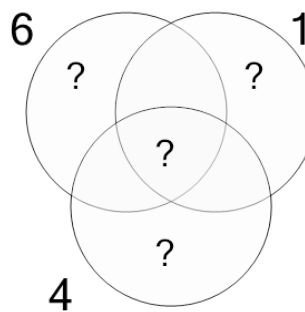**2** Use the factor diagram to find the shared prime factors of these numbers (in the center)

6 ? ? 9 ? ? 15

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

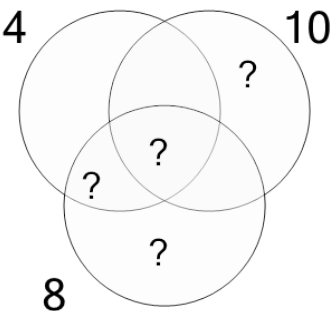**3** Use the factor diagram to find the shared prime factors of these numbers (in the center)

12 ? ? ? 8 ? ? 10

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

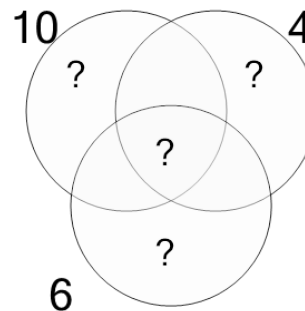**4** Use the factor diagram to find the shared prime factors of these numbers (in the center)

6 ? ? 10 ? ? 4

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

5 Use the factor diagram to find the shared prime factors of these numbers (in the center)
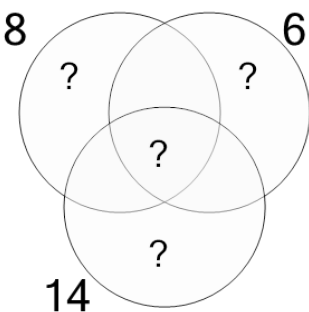
4 ? 10 ? ? ? 8

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

6 Use the factor diagram to find the shared prime factors of these numbers (in the center)
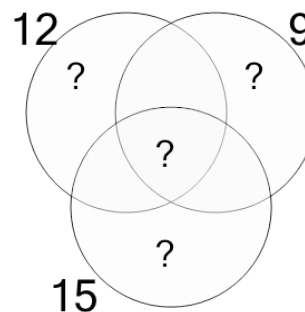
10 ? ? 4 ? ? 6

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

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

8 ? ? 6 ? ? 14

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

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

12 ? ? 9 ? ? 15

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