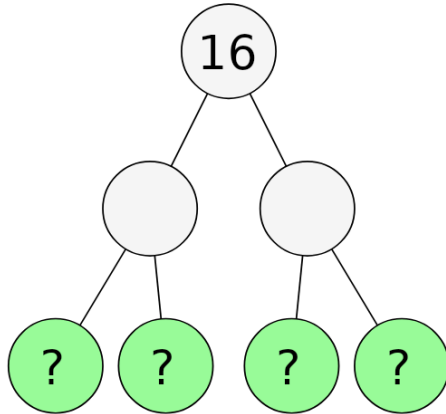


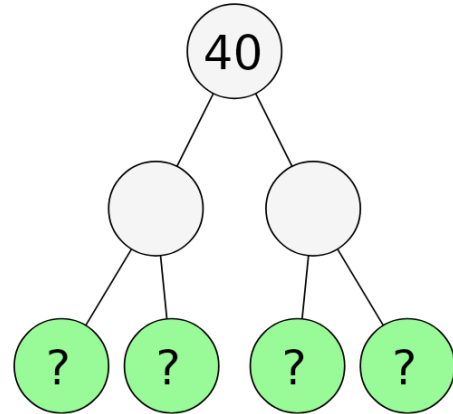
Factoring and Lowest Common Multiple Practice

- 1** Finish the factor tree to find the prime factorization of this number



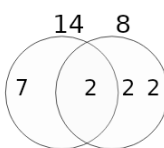
- | | | |
|-------------------------|-------------------------|-------------------------|
| A $2 \times 2 \times 2$ | B $2 \times 2 \times 2$ | C $2 \times 2 \times 2$ |
| 2 | 2×2 | $\times 2 \times 2$ |
| D $2 \times 2 \times 2$ | E $2 \times 2 \times 2$ | F $2 \times 2 \times$ |
| $\times 2 \times 13$ | $\times 2 \times 3$ | 4 |

- 2** Finish the factor tree to find the prime factorization of this number



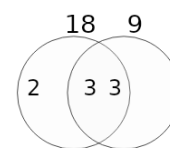
- | | | |
|-------------------------|-------------------------|-------------------------|
| A $2 \times 2 \times$ | B $2 \times 2 \times$ | C $2 \times 2 \times 2$ |
| 2×5 | 5 | $\times 3 \times 5$ |
| D $2 \times 2 \times 2$ | E $2 \times 2 \times 2$ | F $2 \times 2 \times 2$ |
| $\times 5 \times 11$ | $\times 5 \times 5$ | $\times 5 \times 7$ |

- 3** Find the LCM of these numbers by multiplying the set of all distinct prime factors



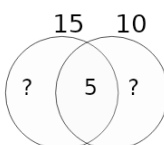
- | | | |
|-------|------|-------|
| A 394 | B 28 | C 396 |
| D 114 | E 56 | F 27 |

- 4** Find the LCM of these numbers by multiplying the set of all distinct prime factors



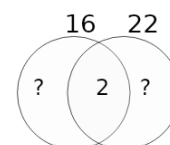
- | | | |
|------|-------|------|
| A 17 | B 93 | C 18 |
| D 13 | E 110 | F 22 |

- 5** Complete the factor diagram and use it to find lowest common multiple of these numbers.

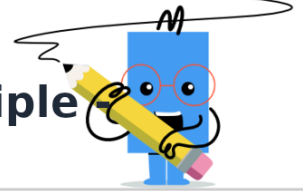


- | | | |
|-------|-------|------|
| A 210 | B 183 | C 30 |
| D 181 | E 92 | F 85 |

- 6** Complete the factor diagram and use it to find lowest common multiple of these numbers.

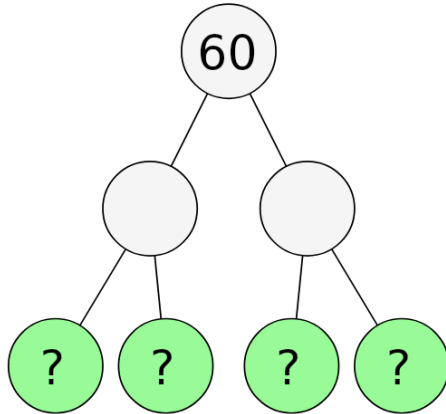


- | | | |
|------|-------|-------|
| A 83 | B 176 | C 350 |
| D 92 | E 173 | F 91 |



Factoring and Lowest Common Multiple Practice

- 7** Finish the factor tree to find the prime factorization of this number



- | | | |
|---|---|---|
| A $2 \times 2 \times 3 \times 3 \times 5$ | B $2 \times 2 \times 2 \times 3 \times 5$ | C $2 \times 2 \times 3$ |
| D $2 \times 2 \times 3 \times 5$ | E $2 \times 6 \times 5$ | F $2 \times 2 \times 3 \times 5 \times 5$ |

- 8** Show the prime factorization of this number

24

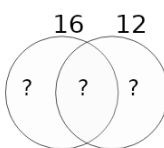
- | | |
|--------------------|--------------------|
| A {2, 2, 2, 2, 3} | B {2, 2, 6} |
| C {2, 2, 2, 3, 13} | D {2, 4, 3} |
| E {2, 2, 2, 3} | F {2, 2, 2, 3, 11} |

- 9** Show the prime factorization of this number

56

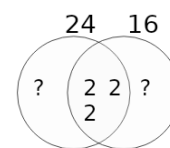
- | | |
|--------------------|-------------------|
| A {2, 2, 14} | B {2, 2, 2, 5, 7} |
| C {2, 2, 2, 7, 11} | D {2, 2, 2} |
| E {2, 2, 7} | F {2, 2, 2, 7} |

- 10** Use the factor diagram to find the lowest common multiple of these numbers



- | | | |
|-------|------|-------|
| A 287 | B 26 | C 48 |
| D 195 | E 50 | F 139 |

- 11** Complete the factor diagram and find the set of all distinct prime factors.



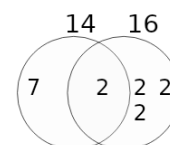
- | | | |
|----------------------|----------------------|----------------------|
| A {2, 2, 2, 3} | B {2, 2, 2, 3, 2, 4} | C {2, 2, 2, 3, 2, 7} |
| D {2, 2, 2, 3, 2, 6} | E {2, 2, 2, 3, 2} | F {2, 2, 2, 6, 2} |

- 12** Show the prime factorization of this number

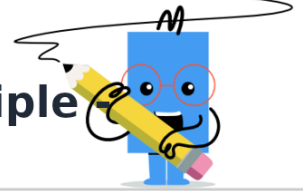
104

- | | |
|--------------------|--------------------|
| A {2, 2, 2} | B {2, 4, 13} |
| C {2, 2, 2, 5, 13} | D {2, 2, 2, 7, 13} |
| E {2, 2, 2, 13} | F {2, 2, 13} |

- 13** Use the factor diagram to find all the distinct prime factors of these numbers.

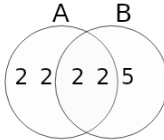


- | | | |
|----------------------|----------------------|----------------------|
| A {2, 7, 2, 2, 2, 6} | B {3, 7, 2, 2, 2} | C {2, 7, 2, 2, 2, 3} |
| D {2, 7, 2, 2, 2} | E {2, 7, 2, 2, 2, 2} | F {2, 7, 2, 2, 2, 4} |



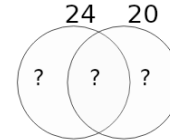
Factoring and Lowest Common Multiple Practice

14 Find the numbers that this factor diagram represents



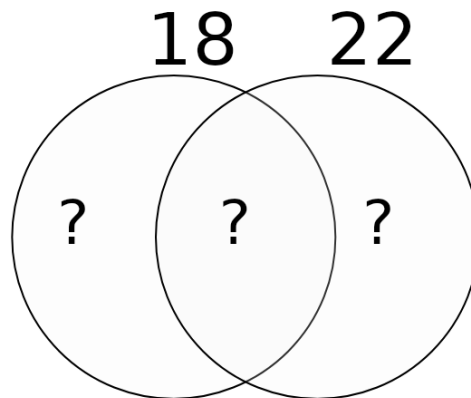
A	A=16, B=19	B	A=16, B=20	C	A=16, B=21
D	A=14, B=16	E	A=20, B=17	F	A=18, B=20

15 Use the factor diagram to find the lowest common multiple of these numbers



A	119	B	20	C	597
D	120	E	123	F	122

16 Populate the prime factor diagram. Put shared factors in the center.



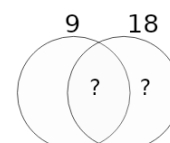
A		B	
C		D	

17 Find the set of all the distinct prime factors of these numbers

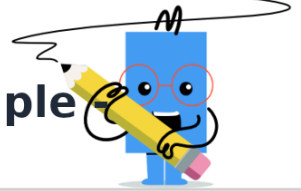
18, 15

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

18 Populate the factor diagram and find the distinct prime factors of these numbers.



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



Factoring and Lowest Common Multiple Practice

- 19** Find the lowest common multiple of these numbers from their factorization by choosing the set of all distinct factors

$$13(= 13)$$

$$10(= 2 \times 5)$$

A	5	B	130	C	910
D	127	E	129	F	125

- 20** Find the lowest common multiple of these numbers from their factorization by choosing the set of all distinct factors

$$11(= 11)$$

$$18(= 2 \times 3 \times 3)$$

A	198	B	393	C	790
D	193	E	196	F	789

- 21** Find the lowest common multiple of these numbers

13, 6

A	78	B	310	C	387
D	35	E	389	F	230

- 22** Find the lowest common multiple of these numbers

13, 14

A	27	B	182	C	914
D	184	E	1,094	F	16

- 23** Is 12 a multiple of 4

A	B
No	Yes

- 24** Is 441 a multiple of 63

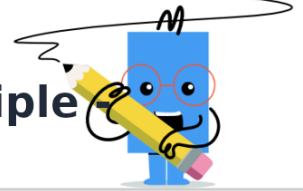
A	B
No	Yes

- 25** Is 105 a multiple of both 15 and 35?

A	B
Yes	No

- 26** Is 126 a multiple of both 30 and 18?

A	B
No	Yes



Factoring and Lowest Common Multiple Practice

27 Is y a multiple of 6

A

Yes

B

No

28 Find the lowest common multiple of these numbers from their factorization by choosing the set of all distinct factors

$$13(= 13)$$

$$5(= 5)$$

$$11(= 11)$$

A

138 4,287 52

D

53

E

57

F

715

29 Which of these two numbers is a prime number?

79,85

A

85

B

79

30 Find the lowest common multiple of these numbers from their factorization by choosing the set of all distinct factors

$$14(= 2 \times 7)$$

$$9(= 3 \times 3)$$

$$8(= 2 \times 2 \times 2)$$

A

251 2,521 247

D

1,510 170 504

E

170

F

504

31 Which of these two numbers is a prime number?

79,85

A

85

B

79

32 Is z a multiple of 30

A

Yes

B

No

33 Is this a prime or a composite number?

66

A

Prime

B

Composite

34 Find the set of all the distinct prime factors of these numbers

3, 7, 2

A

{2, 7, 2}

B

{3, 7, 6}

C

{3, 7, 2}

D

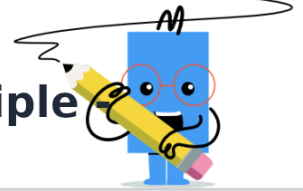
{3, 7, 2, 5, 3}

E

{7, 2}

F

{3, 7}



Factoring and Lowest Common Multiple Practice

35 Is c a multiple of both 6 and 21?

A

Yes

B

No

36 Is y a multiple of both 28 and 70?

A

No

B

Yes

37 Is this a prime or a composite number?

89

A

Prime

B

Composite

38 Find the set of all the distinct prime factors of these numbers

8, 11, 7

A {2, 2, 5, 11, 7}

B {2, 2, 2, 11, 7, 7}

C {2, 2, 2, 11, 7}

D {2, 2, 11, 7}

E {2, 5, 2, 11, 7}

F {2, 2, 2, 5, 7}

39 Find the set of all the distinct prime factors of these numbers

8, 18, 9

A {2, 2, 2, 3}

B {2, 2, 2, 3, 3, 3}

C {2, 2, 2, 3, 3}

D {2, 2, 2, 3, 3, 4}

E {2, 2, 2, 3, 5}

F {2, 2, 3, 3}

40 Find the lowest common multiple of these numbers

10, 6, 5

A 17

B 30

C 146

D 90

E 91

F 151

41 Find the lowest common multiple of these numbers

11, 6, 12

A 660

B 128

C 524

D 132

E 658

F 134

42 Find the lowest common multiple of these numbers

12, 11, 10

A 662

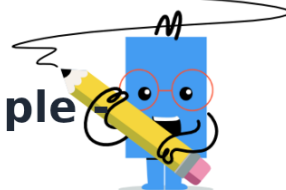
B 660

C 128

D 655

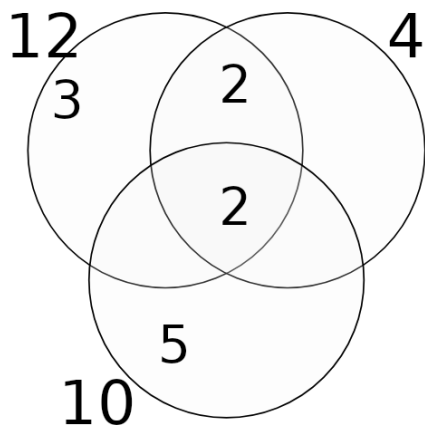
E 131

F 326



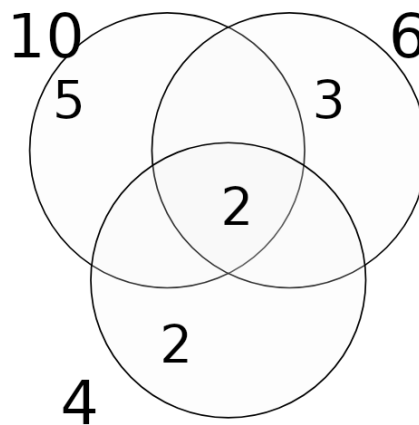
Factoring and Lowest Common Multiple Practice

43 Use the factor diagram to find the lowest common multiple of these numbers



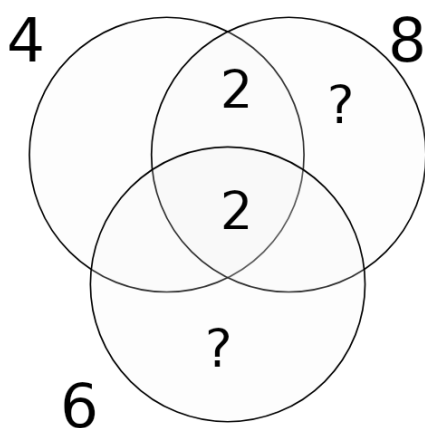
A	63	B	30	C	29
D	60	E	26	F	416

44 Use the factor diagram to find the lowest common multiple of these numbers



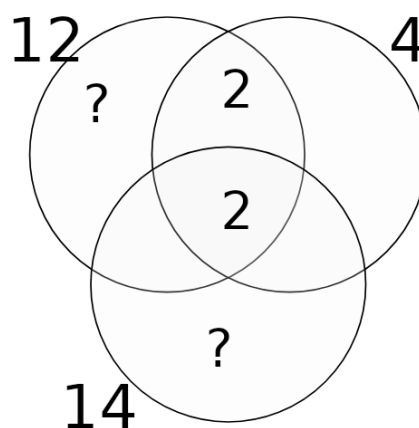
A	298	B	62	C	28
D	358	E	61	F	60

45 Complete the factor diagram and use it to find lowest common multiple of these numbers



A	10	B	24	C	23
D	43	E	72	F	11

46 Complete the factor diagram and use it to find lowest common multiple of these numbers



A	11	B	247	C	500
D	45	E	30	F	84