

Prime Factorization Practice

Difficulty Level: ★☆☆☆☆

Directions: Find the prime factors for the numbers below. You may need a piece of scratch paper to complete these problems.

1

___ x ___ = 10

2

___ x ___ = 25

3

___ x ___ = 21

4

___ x ___ = 6

5

___ x ___ = 26

6

___ x ___ = 15

7

___ x ___ = 38

8

___ x ___ = 9

9

___ x ___ = 33

Prime Factorization Practice

Difficulty Level: ★★☆☆☆

Directions: Find the prime factors for the numbers below. You may need a piece of scratch paper to complete these problems.

1

___ x ___ x ___ = 27

2

___ x ___ x ___ = 20

3

___ x ___ x ___ = 63

4

___ x ___ x ___ = 325

5

___ x ___ x ___ = 52

6

___ x ___ x ___ = 68

7

___ x ___ x ___ = 45

8

___ x ___ x ___ = 92

9

___ x ___ x ___ = 114

Name _____

Date _____

Prime Factorization Practice

Difficulty Level: ★★☆☆☆

Directions: Find the prime factors for the numbers below. You may need a piece of scratch paper to complete these problems.

1

A factor tree for the number 81. The root node is a rounded rectangle containing the number 81. It branches into a circle and a rounded rectangle. The rounded rectangle further branches into a circle and another rounded rectangle. This second rounded rectangle branches into two circles.

___ x ___ x ___ x ___ = 81

2

A factor tree for the number 60. The root node is a rounded rectangle containing the number 60. It branches into a circle and a rounded rectangle. The rounded rectangle further branches into a circle and another rounded rectangle. This second rounded rectangle branches into two circles.

___ x ___ x ___ x ___ = 60

3

A factor tree for the number 24. The root node is a rounded rectangle containing the number 24. It branches into a circle and a rounded rectangle. The rounded rectangle further branches into a circle and another rounded rectangle. This second rounded rectangle branches into two circles.

___ x ___ x ___ x ___ = 24

4

A factor tree for the number 126. The root node is a rounded rectangle containing the number 126. It branches into a circle and a rounded rectangle. The rounded rectangle further branches into a circle and another rounded rectangle. This second rounded rectangle branches into two circles.

___ x ___ x ___ x ___ = 126

5

A factor tree for the number 375. The root node is a rounded rectangle containing the number 375. It branches into a circle and a rounded rectangle. The rounded rectangle further branches into a circle and another rounded rectangle. This second rounded rectangle branches into two circles.

___ x ___ x ___ x ___ = 375

6

A factor tree for the number 104. The root node is a rounded rectangle containing the number 104. It branches into a circle and a rounded rectangle. The rounded rectangle further branches into a circle and another rounded rectangle. This second rounded rectangle branches into two circles.

___ x ___ x ___ x ___ = 104

Prime Factorization Practice

Difficulty Level: ★★☆☆☆

Directions: Find the prime factors for the numbers below. You may need a piece of scratch paper to complete these problems.

1

390

___ x ___ x ___ x ___ = 390

2

459

___ x ___ x ___ x ___ = 459

3

532

___ x ___ x ___ x ___ = 532

4

340

___ x ___ x ___ x ___ = 340

5

484

___ x ___ x ___ x ___ = 484

6

550

___ x ___ x ___ x ___ = 550

Prime Factorization Practice

Difficulty Level: ★★☆☆☆

Directions: Find the prime factors for the numbers below. You may use a calculator to solve these problems.

1

2332

___ x ___ x ___ x ___ = 2332

2

2910

___ x ___ x ___ x ___ = 2910

3

33575

___ x ___ x ___ x ___ = 33575

4

3124

___ x ___ x ___ x ___ = 3124

5

6890

___ x ___ x ___ x ___ = 6890

6

14641

___ x ___ x ___ x ___ = 14641

Name _____

Date _____

Prime Numbers Chart

The Prime Numbers between 1 and 100 are highlighted in grey.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Prime Factorization Practice

Difficulty Level: ★☆☆☆☆

Answer Key

Directions: Find the prime factors for the numbers below. You may need a piece of scratch paper to complete these problems.

1

 x 5 = 10

2

5 x 5 = 25

3

3 x 7 = 21

4

2 x 3 = 6

5

2 x 13 = 26

6

3 x 5 = 15

7

2 x 19 = 38

8

3 x 3 = 9

9

3 x 11 = 33

Prime Factorization Practice

Difficulty Level: ★★☆☆☆

Answer Key

Directions: Find the prime factors for the numbers below. You may need a piece of scratch paper to complete these problems.

1

A factor tree for the number 27. The number 27 is in a rounded rectangle at the top. Two lines branch down to a circle on the left and a rounded rectangle in the middle. From the middle rounded rectangle, two lines branch down to two circles.

3 x 3 x 3 = 27

2

A factor tree for the number 20. The number 20 is in a rounded rectangle at the top. Two lines branch down to a circle on the left and a rounded rectangle in the middle. From the middle rounded rectangle, two lines branch down to two circles.

2 x 2 x 5 = 20

3

A factor tree for the number 63. The number 63 is in a rounded rectangle at the top. Two lines branch down to a circle on the left and a rounded rectangle in the middle. From the middle rounded rectangle, two lines branch down to two circles.

3 x 3 x 7 = 63

4

A factor tree for the number 325. The number 325 is in a rounded rectangle at the top. Two lines branch down to a circle on the left and a rounded rectangle in the middle. From the middle rounded rectangle, two lines branch down to two circles.

5 x 5 x 13 = 325

5

A factor tree for the number 52. The number 52 is in a rounded rectangle at the top. Two lines branch down to a circle on the left and a rounded rectangle in the middle. From the middle rounded rectangle, two lines branch down to two circles.

2 x 2 x 13 = 52

6

A factor tree for the number 68. The number 68 is in a rounded rectangle at the top. Two lines branch down to a circle on the left and a rounded rectangle in the middle. From the middle rounded rectangle, two lines branch down to two circles.

2 x 2 x 17 = 68

7

A factor tree for the number 45. The number 45 is in a rounded rectangle at the top. Two lines branch down to a circle on the left and a rounded rectangle in the middle. From the middle rounded rectangle, two lines branch down to two circles.

3 x 3 x 5 = 45

8

A factor tree for the number 92. The number 92 is in a rounded rectangle at the top. Two lines branch down to a circle on the left and a rounded rectangle in the middle. From the middle rounded rectangle, two lines branch down to two circles.

2 x 2 x 23 = 92

9

A factor tree for the number 114. The number 114 is in a rounded rectangle at the top. Two lines branch down to a circle on the left and a rounded rectangle in the middle. From the middle rounded rectangle, two lines branch down to two circles.

2 x 3 x 19 = 114

Prime Factorization Practice

Difficulty Level: ★★☆☆☆

Answer Key

Directions: Find the prime factors for the numbers below. You may need a piece of scratch paper to complete these problems.

1

$\underline{3} \times \underline{3} \times \underline{3} \times \underline{3} = 81$

2

$\underline{2} \times \underline{2} \times \underline{3} \times \underline{5} = 60$

3

$\underline{2} \times \underline{2} \times \underline{2} \times \underline{3} = 24$

4

$\underline{2} \times \underline{3} \times \underline{3} \times \underline{7} = 126$

5

$\underline{3} \times \underline{5} \times \underline{5} \times \underline{5} = 375$

6

$\underline{2} \times \underline{2} \times \underline{2} \times \underline{13} = 104$

Prime Factorization Practice

Difficulty Level: ★★☆☆☆

Answer Key

Directions: Find the prime factors for the numbers below. You may need a piece of scratch paper to complete these problems.

1

$\underline{2} \times \underline{3} \times \underline{5} \times \underline{13} = 390$

2

$\underline{3} \times \underline{3} \times \underline{3} \times \underline{17} = 459$

3

$\underline{2} \times \underline{2} \times \underline{7} \times \underline{19} = 532$

4

$\underline{2} \times \underline{2} \times \underline{5} \times \underline{17} = 340$

5

$\underline{2} \times \underline{2} \times \underline{11} \times \underline{11} = 484$

6

$\underline{2} \times \underline{5} \times \underline{5} \times \underline{11} = 550$

Prime Factorization Practice

Difficulty Level: ★★☆☆☆

Answer Key

Directions: Find the prime factors for the numbers below. You may use a calculator to solve these problems.

1

$\underline{2} \times \underline{2} \times \underline{11} \times \underline{53} = 2332$

2

$\underline{2} \times \underline{3} \times \underline{5} \times \underline{97} = 2910$

3

$\underline{5} \times \underline{5} \times \underline{17} \times \underline{79} = 33575$

4

$\underline{2} \times \underline{2} \times \underline{11} \times \underline{71} = 3124$

5

$\underline{2} \times \underline{5} \times \underline{13} \times \underline{53} = 6890$

6

$\underline{11} \times \underline{11} \times \underline{11} \times \underline{11} = 14641$