

Math Practice Sheets

Multiplication Part I



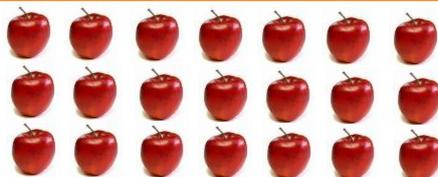
Student Name _____

Examples

Practice Questions

Extra Challenge Unit

Example



One way to count the apples is to add the number of apples in each row 3 times. Each row has 7 apples.

Repeated addition:

$$7 + 7 + 7 = 21$$

Adding 3 rows of 7

Multiplication: $7 \times 3 = 21$

Factors Product

∴ There are 21 apples in total.

Another way to count the apples is to count the number of apples in each column 7 times. Each column has 3 apples.

Repeated addition:

$$3 + 3 + 3 + 3 + 3 + 3 + 3 = 21$$

Adding 7 columns of 3

Multiplication: $3 \times 7 = 21$

Factors Product

Note that multiplication is an operation that gives the total number when you join equal groups. The product is the answer to a multiplication problem and factors are the numbers multiplied together to find the product.

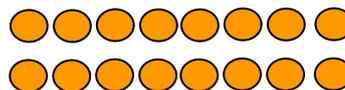
Exercise

- Write an addition sentence and a multiplication sentence for each group of pictures below.

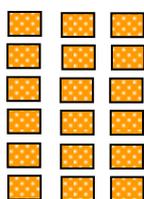
a)



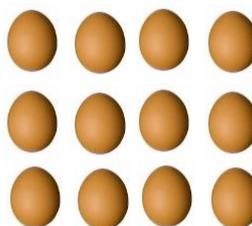
b)



c)



d)



Exercise

2. Write a multiplication sentence for each of the following addition sentences.

a) $9 + 9 + 9 + 9 + 9 = 45$

b) $7 + 7 + 7 + 7 + 7 + 7 = 42$

c) $4 + 4 + 4 + 4 + 4 + 4 + 4 = 28$

d) $8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 = 64$

e) $2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 18$

f) $6 + 6 + 6 + 6 = 24$

3. Write '+', '-', or '×' for each

a) $3 \square 9 = 27$

b) $8 \square 8 = 0$

c) $4 \square 6 = 10$

d) $7 \square 7 = 49$

e) $0 \square 5 = 5$

f) $9 \square 0 = 0$

Example

A multiple is the product of any two whole numbers.

You can find multiples of any number using skip counting.

For example:

Multiples of 2 are 2, 4, 6, 8...

Note that all multiples of 2 are even numbers.

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

The multiples of 5 are 5, 10, 15, 20, 25.....

Note that all multiples of 5 have a 0 or 5 in one's place.

Similarly, the multiples of 9 are 9, 18, 27, 36, 45.....

Exercise

1. Find the missing numbers using skip counting.

a) 10, 12, 14, 16, 18, _____, _____, _____.

b) 27, 36, 45, 54, 63, _____, _____, _____.

c) 15, 20, 25, 30, 35, _____, _____, _____.

d) 36, 38, _____, _____, _____, 46, 48, 50.

e) _____, _____, _____, 25, 30, 35, 40, 45.

f) 18, _____, _____, _____, 54, 63, 72, 81.

Exercise

2. Multiply each of the following.

a)
$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

b) $3 \times 5 =$

c) $8 \times 4 =$

d)
$$\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$$

f) $2 \times 7 =$

3. Find the missing numbers.

a) $\underline{\quad} \times 2 = 18$

b)
$$\begin{array}{r} \square \\ \times 6 \\ \hline 12 \end{array}$$

c)
$$\begin{array}{r} 9 \\ \times \square \\ \hline 45 \end{array}$$

d) $\underline{\quad} \times 8 = 40$

e) $\underline{\quad} \times 3 = 27$

f)
$$\begin{array}{r} \square \\ \times 2 \\ \hline 4 \end{array}$$

g)
$$\begin{array}{r} 1 \\ \times \square \\ \hline 9 \end{array}$$

h) $\underline{\quad} \times 5 = 25$

Example

Read this multiplication table (0 to 9).

×	0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9
2	0	2	4	6	8	10	12	14	16	18
3	0	3	6	9	12	15	18	21	24	27
4	0	4	8	12	16	20	24	28	32	36
5	0	5	10	15	20	25	30	35	40	45
6	0	6	12	18	24	30	36	42	48	54
7	0	7	14	21	28	35	42	49	56	63
8	0	8	16	24	32	40	48	56	64	72
9	0	9	18	27	36	45	54	63	72	81

Exercise

1. Find the product of each of the following using the above table.

a)

$$4 \times 7 = \underline{\quad}$$

b)

$$\begin{array}{r} 8 \\ \times 9 \\ \hline \square \end{array}$$

c)

$$\begin{array}{r} 0 \\ \times 3 \\ \hline \square \end{array}$$

d)

$$5 \times 6 = \underline{\quad}$$

e)

$$2 \times 10 = \underline{\quad}$$

f)

$$\begin{array}{r} 9 \\ \times 10 \\ \hline \square \end{array}$$

g)

$$\begin{array}{r} 8 \\ \times 8 \\ \hline \square \end{array}$$

h)

$$7 \times 9 = \underline{\quad}$$

Exercise

Solve the problem below.

2. There are 9 cars in a parking lot. Assuming all of the cars have 4 wheels, how many wheels are there in total?

3.  is equal to

a) \$6.12

b) \$6.27

c) \$6.17

d) \$6.31

4. Write an addition sentence and a multiplication sentence for the following counters.



5. Are there more apples or mangoes? Why?

8×6
Apples

7×7
Mangoes

Example

Multiplication has the following properties.

Identity Property:

The product of any number and 1 is the number itself.

i.e. 1 group of 5 is
 $1 \times 5 = 5$



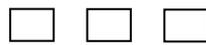
Similarly,

$$\begin{aligned} 1 \times 9 &= 9 \\ 27 \times 1 &= 27 \\ 1 \times 600 &= 600 \end{aligned}$$

Zero Property:

The product of a number and 0 is always 0.

i.e. 3 groups of 0 is
 $3 \times 0 = 0$



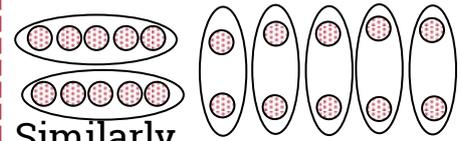
Similarly,

$$\begin{aligned} 0 \times 8 &= 0 \\ 66 \times 0 &= 0 \\ 0 \times 900 &= 0 \end{aligned}$$

Commutative Property:

The change of order of the numbers in the multiplication does not change the product.

i.e. $2 \times 5 = 5 \times 2$



Similarly,

$$\begin{aligned} 7 \times 4 &= 4 \times 7 \\ 6 \times 15 &= 15 \times 6 \\ 30 \times 22 &= 22 \times 30 \end{aligned}$$

Exercise

1. Find each product and write the property used.

a) $7 \times 0 =$

_____ Property

b) $8 \times 1 =$ _____

_____ Property

c) $5 \times 10 = 10 \times 5$

_____ = _____
_____ Property

d) $0 \times 3 =$ _____

_____ Property

e) $1 \times 7 =$ _____

_____ Property

f) $9 \times 6 = 6 \times 9$

_____ = _____
_____ Property

g) $6 \times 1 =$ _____

_____ Property

h) $6 \times 0 =$ _____

_____ Property

Exercise

2. Fill in the blanks.

a) _____ \times 1 = 5

b) _____ \times 2 = 0

c) $9 \times 4 = 4 \times$ _____

d) _____ \times 7 = 7×60

e) _____ \times 1 = 0

f) $5 \times$ _____ = 5

g) $8 \times 2 = 2 \times$ _____

h) $9 \times 4 =$ _____ \times 9

3. Complete the following using the commutative property.

a) $2 \times 7 =$ _____ \times 2
_____ = 14

b) _____ \times 9 = 9×6
_____ = _____

c) _____ \times 4 = 4×11
_____ = _____

d) $1 \times 3 =$ _____ \times 1
_____ = _____

e) $11 \times$ _____ = 3×11
_____ = _____

f) _____ \times 8 = 8×5
_____ = _____

Example

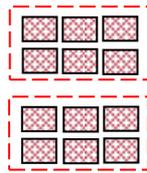
There are 4 seasons in a year.

How many seasons are in 3 years?

You can use the distributive property to break apart facts to find the product of 4×3 .

One way:

Break apart 4 into $2 + 2$.



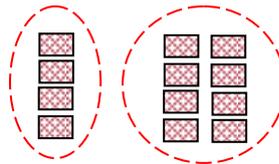
$$\text{i.e. } (2 \times 3) + (2 \times 3)$$

$$6 + 6 = 12$$

$$\text{So, } 4 \times 3 = 12$$

Another way:

Break apart 3 into $1 + 2$.



$$\text{i.e. } (1 \times 4) + (2 \times 4)$$

$$4 + 8 = 12$$

$$\text{So, } 4 \times 3 = 12$$

\therefore There are 12 seasons in 3 years.

Exercise

1. Find the product by breaking apart.

$$\text{a) } 4 \times 5 = (1 \times 5) + (\underline{\quad} \times 5) = \underline{\quad} + 15 = \underline{\quad}$$

$$\text{b) } 3 \times 9 = (3 \times \underline{\quad}) + (3 \times 7) = 6 + \underline{\quad} = \underline{\quad}$$

$$\text{c) } 2 \times 6 = (1 \times 6) + (\underline{\quad} \times 6) = \underline{\quad} + 6 = \underline{\quad}$$

$$\text{d) } 4 \times 10 = (4 \times \underline{\quad}) + (4 \times 3) = 28 + \underline{\quad} = \underline{\quad}$$

$$\text{e) } 3 \times 15 = (3 \times 5) + (3 \times \underline{\quad}) = \underline{\quad} + 30 = \underline{\quad}$$

Exercise

2. Find the product. Use break apart.

a) 2×7

b) 4×5

c) 3×6

d) 9×4

e) 8×3

f) 2×9

g) 12×3

h) 15×2

i) 4×3

j) 18×2

k) 10×4

Exercise

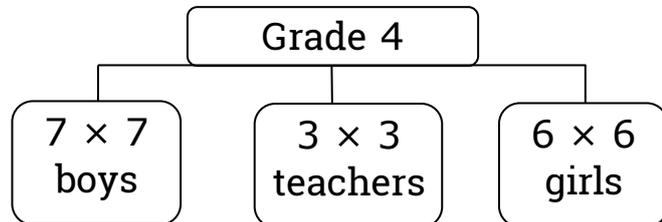
Solve the problems below.

3. There are 60 candies in a box. Britney eats 10 candies on Tuesday, 10 candies on Wednesday, 10 candies on Thursday, and so on. If she eats a row of candies each day, how many rows of candies are there in the box?
4. The way to break apart 7×4 is
- a) $(3 \times 4) + (3 \times 4)$ b) $(4 \times 4) + (3 \times 3)$
- c) $(7 \times 4) + (7 \times 4)$ d) $(3 \times 4) + (4 \times 4)$
5. To find 2×10 , Orion breaks 10 into 3 and 7. Complete Orion's work.
6. Use breaking apart to find the total number of basketballs.



Exercise

1. How can you tell there are more boys than girls in grade 4 without multiplying?



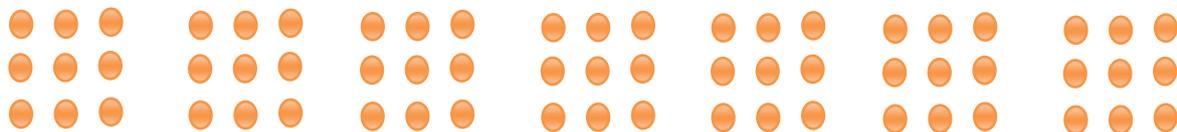
2. Find the numbers using skip counting.

a) 635, 640, 645, 650, 655, _____, _____, _____

b) 4,174, 4,176, 4,178, _____, _____, _____

c) 81, 72, 63, 54, _____, _____, _____

3. Write an addition and multiplication sentence for the counters.



4. How many sides are there in a pentagon? How many sides in 8 pentagons?

There are _____ sides in a pentagon.

There are _____ sides in 8 pentagons.

Exercise

5. Find the missing numbers and write the property.

a) $3 \times 8 = \underline{\quad} \times \underline{\quad}$ Commutative Property

b) $12 \times 1 = \underline{\quad}$ _____ Property

c) $0 \times 9 = \underline{\quad}$ _____ Property

6. Delaney counted 4×16 vans in a parking. Which expression shows how many vans he counted?

a) $(2 \times 10) + (2 \times 6)$

b) $(4 + 4 + 4 + 4)$

c) $(4 \times 12) - (4 \times 4)$

d) $(4 \times 12) + (4 \times 4)$

7. Use breaking apart to find 3×25 .

8. Use breaking apart to find the number of tires in 15 motorcycles.

Congratulations!

You have finished a lesson. You should be very proud of yourself.

Now it is time to progress to the next lesson.

Your next assignment is notated by a green arrow.

Lesson 1 Learning Numeration

Lesson 2 Addition and Subtraction Part I

Lesson 3 Addition and Subtraction Part II

Lesson 4 Multiplication Part I

Review 1 Review of Lesson 1, 2, 3, and 4



Unit R1.1 Learning Numeration

Unit R1.2 Addition and Subtraction Part I

Unit R1.3 Addition and Subtraction Part II

Unit R1.4 Multiplication Part I

Lesson 5 Multiplication Part II

Lesson 6 Division

Lesson 7 Multiplying by 1-Digit Numbers Part I

Lesson 8 Multiplying by 1-Digit Numbers Part II

Review 2 Review of Lesson 5, 6, 7, and 8

Lesson 9 Algebra Part I

Lesson 10 Algebra Part II

Lesson 11 Multiplication Strategies

Lesson 12 Multiplication by 2-Digit Numbers

Review 3 Review of Lesson 9, 10, 11, and 12

Lesson 13 Dividing by 1-Digit Numbers Part I

Lesson 14 Dividing by 1-Digit Numbers Part II

Lesson 15 Geometry Part I

Lesson 16 Geometry Part II

Review 4 Review of Lesson 13, 14, 15, and 16

Lesson 17 Fractions

Lesson 18 Fraction Operation

Lesson 19 Decimals

Lesson 20 Decimal Number Operation

Review 5 Review of Lesson 17, 18, 19, and 20

Lesson 21 Measurement Part I

Lesson 22 Measurement Part II

Lesson 23 Solid and Measurement

Lesson 24 Graph

Review 6 Review of Lesson 21, 22, 23, and 24

Lesson 25 Equation and Function

Lesson 26 Transformation, Congruence, and Symmetry

Lesson 27 Probability

Review of Lesson 1 to 14

Review of Lesson 15 to 27

Unit 4.1

1. a) $5+5+5+5+5=20$ b) $8+8=16$ c) $3+3+3+3+3+3=18$ d) $4+4+4=12$
 $5 \times 4=20$ $8 \times 2=16$ $3 \times 6=18$ $4 \times 3=12$
2. a) $9 \times 5=45$ b) $7 \times 6=42$ c) $4 \times 7=28$ d) $8 \times 8=64$
 e) $2 \times 9=18$ f) $4 \times 6=24$
3. a) \times b) $-$ c) $+$ d) \times
 e) $+$ f) \times 4. 12 5. d
6. $5+5+5+5=20$ 7. $3+3+3+3+3+3=18$
 $5 \times 4=20$ $3 \times 6=18$

Unit 4.2

1. a) 20,22,24 b) 72,81,90 c) 40,45,50 d) 40,42,44
 e) 10,15,20 f) 27,36,45
2. a) 36 b) 15 c) 32 d) 30
 e) 35 f) 14
3. a) 9 b) 2 c) 5 d) 5
 e) 9 f) 2 g) 9 h) 5
4. 40 5. 18 6. 36 7. yes

Unit 4.3

1. a) 28 b) 72 c) 0 d) 30
 e) 20 f) 90 g) 64 h) 63
2. 36 3. c
4. $5+5+5+5+5=25$ and $5 \times 5=25$ 5. mangoes

Unit 4.4

1. a) 0, zero b) 8, identity c) $50=50$, commutative
 d) 0, zero e) 7, identity f) $54=54$, commutative
 g) 6, identity h) 0, zero
2. a) 5 b) 0 c) 9 d) 60
 e) 0 f) 1 g) 8 h) 4
3. a) $2 \times 7=7 \times 2=14$ b) $6 \times 9=9 \times 6=54$
 c) $11 \times 4=4 \times 11=44$ d) $1 \times 3=3 \times 1=3$
 e) $11 \times 3=3 \times 11=33$ f) $5 \times 8=8 \times 5=40$
5. b 6. 34; 0; no 7. commutative property

Unit 4.5

1. a) $4 \times 5=(1 \times 5)+(3 \times 5)=5+15=20$ b) $3 \times 9=(3 \times 2)+(3 \times 7)=6+21=27$
 c) $2 \times 6=(1 \times 6)+(1 \times 6)=6+6=12$ d) $4 \times 10=(4 \times 7)+(4 \times 3)=28+12=40$
 e) $3 \times 15=(3 \times 5)+(3 \times 10)=15+30=45$
2. a) 14 b) 20 c) 18 d) 36
 e) 24 f) 18 g) 36 h) 30
 i) 12 j) 36 k) 40
3. 6 4. d 5. $(2 \times 3)+(2 \times 7)=6+14=20$
6. $(3 \times 2)+(3 \times 3)=6+9=15$

Unit 4.6

2. a) 660,665,670 b) 4,180; 4,182; 4,184 c) 45,36,27
3. $9+9+9+9+9+9+9=63$; $9 \times 7=63$ 4. 5, $5 \times 8=40$
5. a) 8×3 b) 12; identity c) 0; zero
6. d 7. $(3 \times 5)+(3 \times 20)=15+60=75$
8. $(2 \times 10)+(2 \times 5)=20+10=30$