North Dakota Grade 2 to Grade 3 Math Summer Bridge Workbook

8-Week Review, Grade 3 Readiness, Workbook Practice, and Answer Explanations

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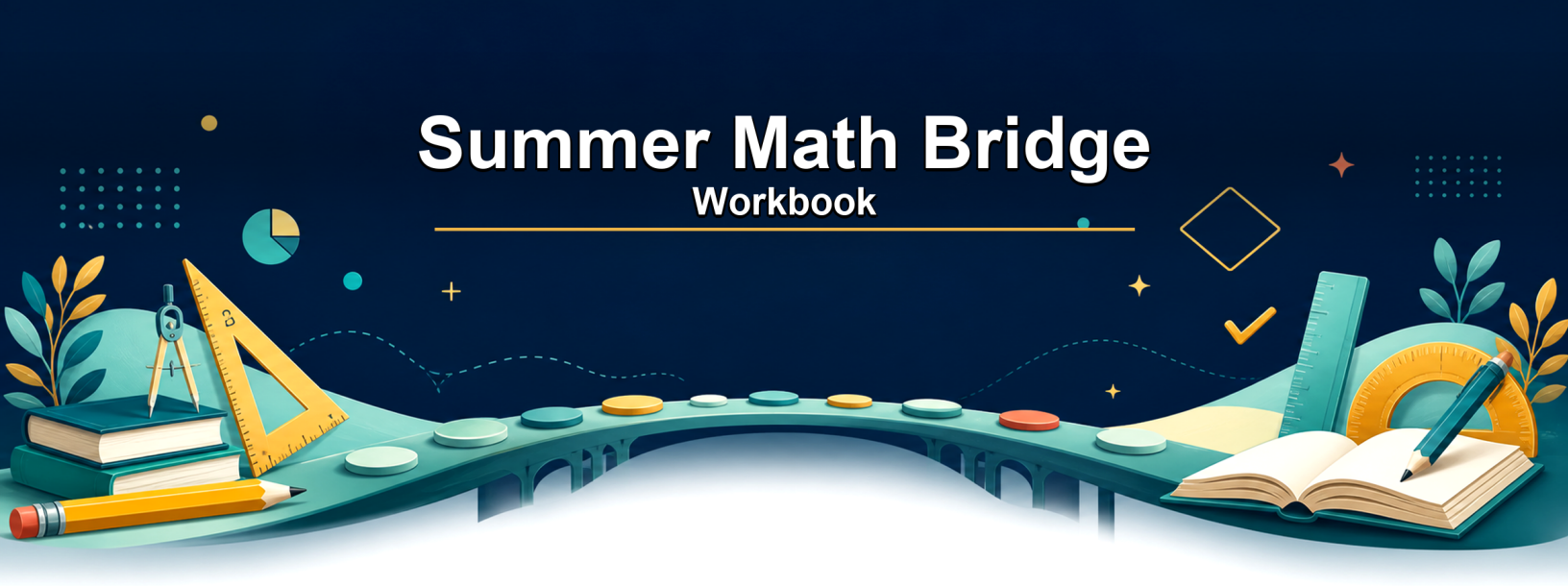
Published by View Math Education
ViewMath.com



Summer Math Bridge

Workbook

This workbook is a bridge: it keeps Grade 2 math strong while making the first month of Grade 3 feel familiar.

Students revisit the Grade 2 ideas that matter most–place value, operations, word problems, equal groups, fractions, measurement, time, money, data, and geometry–then preview the Grade 3 language connected to those skills. Each topic has a short review and a fuller workbook practice set, so students get enough written, visual, and problem-solving practice to build fluency.

For families and teachers

Use one workbook lesson per day, about 20–25 minutes. Let students try first, then use the answer explanations as quick reteaching after mistakes. Friday mixed reviews show which skills are ready and which need another short review.

For students

Keep your work neat, show your thinking, and fix missed problems. The goal is not to rush through the workbook; the goal is to start Grade 3 ready to build on what you already know.

How to Use This Bridge Workbook

The page order is the plan.

Move through the workbook one day at a time. Each week has four workbook practice days and one Friday mixed review, so the routine stays predictable even when summer is busy.

Practice days	Read the quick review, study the example or model, and complete the 12–14 workbook problems.
Friday review	Complete the mixed review without rushing. Use it to practice choosing the right method.
Review answers	Check the answer key, then read the explanation for every missed problem. Correct the work in pencil before moving on.
Extra support	If a skill is shaky, do one similar problem the next day before starting the new page.

Keep it steady

Most workbook lessons should take about 20–25 minutes. Stop before practice turns into frustration.

Show thinking

Use equations, quick models, number lines, labels, or scratch work. Organized work is a Grade 3 habit.

Fix mistakes

A corrected mistake is useful practice. The answer key is written to reteach, not only to score.

My Bridge Workbook Progress

Check off each workbook lesson and write your Friday review score.

This workbook belongs to: _____

Week	Mon	Tue	Wed	Thu	Friday Review
1	☐	☐	☐	☐	_____ / _____
2	☐	☐	☐	☐	_____ / _____
3	☐	☐	☐	☐	_____ / _____
4	☐	☐	☐	☐	_____ / _____
5	☐	☐	☐	☐	_____ / _____
6	☐	☐	☐	☐	_____ / _____
7	☐	☐	☐	☐	_____ / _____
8	☐	☐	☐	☐	_____ / _____

Reflection

One Grade 2 skill I strengthened: _____

One Grade 3 preview skill I want to revisit: _____

Small steady practice all summer makes Grade 3 feel easier.

Number Chart

Use this page for counting patterns, place value, and mental math.

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

Try it:

- Count by 2s, 5s, and 10s.
- Move down one row to add 10.
- Move up one row to subtract 10.
- Circle odd and even numbers in different colors.

WEEK

1

Place Value, Rounding, and Facts

This Week's Days

Day 1 Place Value Review into Thousands

CORE CONCEPT

Numbers can be shown in standard form, word form, expanded form, and place-value models. Name the place first, then name the value.

Hundreds	Tens	Ones
7	**3**	**9**
700	30	9

- Standard form uses digits, like 739.
- Expanded form writes the value of each nonzero digit.
- A zero can hold a place even when that place has no value to add.
- Word form reads the hundreds first, then the tens and ones.

Remember: To check expanded form, add the parts back together and make sure they match the original number.

SET 1 Read place-value models.

1. Use the chart to write the number in standard form. _____

Hundreds	Tens	Ones
6	4	8

2. Use the model to write the number in expanded form. _____

500	70	6

3. Write 506 in expanded form. _____

4. Write the word form for 318. _____

SET 2 Match standard and expanded form.

5. Which number matches $400 + 80 + 2$?

A. 428 **B.** 482

C. 842 **D.** 408

6. Complete the place-value card for 974. $974 = 900 +$ _____ $+$ _____

Hundreds	Tens	Ones
900	?	?

7 True or False: 620 is the same as $600 + 2$. ☐ True ☐ False

8 Write the number with 8 hundreds, 0 tens, and 5 ones. _____

SET 3 Build and explain.

9 Use the place-value mat. What number is shown? _____

Hundreds	Tens	Ones
3	2	6

10 Draw or write the expanded form for 739.

Draw it

Show 739 as hundreds, tens, and ones.

11 A number has 5 hundreds, 0 tens, and 9 ones. Which expanded form is correct?

A. $500 + 9$ **B.** $50 + 9$

C. $500 + 90$ **D.** $5 + 9$

12 Explain why 704 is not the same as 740. _____

Day 2 Counting Patterns, Compare, and Order

CORE CONCEPT

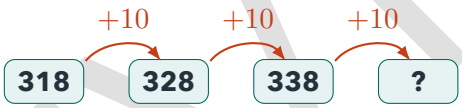
Counting patterns use equal jumps. Comparing numbers means checking the greatest place first and moving right only when places tie.

- Use $>$ for greater than and $<$ for less than.
- Compare hundreds first in three-digit numbers.
- If hundreds tie, compare tens; if tens tie, compare ones.
- Even numbers end in $0, 2, 4, 6,$ or 8.
- Odd numbers end in $1, 3, 5, 7,$ or 9.

Remember: The first place that is different decides which number is greater.

SET 1 Follow counting patterns.

1 Fill in the missing number on the path. _____



2 Write the next three numbers: $512,\ 522,\ 532,$ _____

3 Use the table to find the rule. Then fill the blank. _____

Step	1	2	3	4
Number	625	725	825	

4 Which pattern counts by 5s?

A. $410, 420, 430$
B. $410, 415, 420$
C. $410, 510, 610$
D. $410, 411, 412$

SET 2 Compare and order numbers.

5 Fill in $<$, $>$, or $=$. 438 ____ 483

H	T	O
4	3	8
4	8	3

6 Fill in $<$, $>$, or $=$. 709 ——— 690

7 Order from least to greatest: $512,\ 251,\ 521.$ _____

8 Which number is greatest?

A. 845 **B.** 854

C. 584 **D.** 548

SET 3 Even, odd, and range thinking.

9 Circle the even number.

A. 357 **B.** 491

C. 624 **D.** 719

10 Sort the numbers by writing E for even or O for odd.

327	540	816	905

11 Write an odd number between 300 and 350. _____

12 True or False: 845 is greater than 854. ☐ True ☐ False

WEEK

3

Multiplication and Division Foundations

This Week's Days

Day -1 Equal Groups and Multiplication Meaning

CORE CONCEPT

Multiplication begins with equal groups. Count the groups, count how many are in each group, then write repeated addition or a multiplication fact.

- Equal groups have the same number in every group.
- Repeated addition adds the same group size again and again.
- An array uses rows and columns to show equal groups.
- The first factor can tell how many groups or rows.
- The second factor can tell how many are in each group or row.

Remember: Before multiplying, check that the groups are equal.

SET 1 See equal groups.

1 Write repeated addition for the picture.

2 Write a multiplication equation for $2+2+2+2+2$. _____

3 Which set shows equal groups?

A. $4, 4, 4$ **B.** $2, 3, 4$

C. $5, 4, 5$ **D.** $1, 2, 3$

4 True or False: $6+6+6$ shows 3 equal groups of 6. ☐ True ☐ False

SET 2 Use arrays.

5 How many dots are in the array?

6 Which equation matches 4 rows with 6 in each row?

A. $4+6=10$ **B.** $4\times6=24$

C. $6-4=2$ **D.** $24\div4=4$

7 Draw or write repeated addition for 3 groups of 7. _____

7 7 7

8 A tray has 2 rows of 8 cookies. How many cookies are on the tray? _____

SET 3 Solve equal-group stories.

9 There are 5 bags with 4 shells in each bag. How many shells?

4 4 4 4 4

10 Six teams have 5 players each. What skip-counting pattern finds the total?

_____

11 Which story matches 3×9?

A. 3 more than 9

B. 3 groups of 9

C. 9 less than 3

D. 3 groups and 9 groups

12 A student writes $4 + 5$ for 4 groups of 5. Explain the fix.

Day 0 Grade 3 Preview: Multiplication Facts

CORE CONCEPT

Multiplication facts become easier when you connect arrays, skip counting, doubles, and tens.

- Facts with 0 have product 0.
- Facts with 1 keep the other factor.
- Facts with 2 are doubles.
- Facts with 5 follow a count-by-five pattern.
- Facts with 10 make tens.

Remember: When a fact feels hard, build it from a friendlier fact.

SET 1 Use friendly facts.

1. $7 \times 2 =$ _____

2. $9 \times 5 =$ _____

3. Use the number path to finish 6×5.

4. Which product is 40?

A. 5×7 **B.** 8×5

C. 9×5 **D.** 6×5

SET 2 Read arrays and missing factors.

5. Find the product shown by the array.

6. Find the missing factor: _____ $\times 6 = 36$

7. $8 \times 6 =$ _____

$4 \times 6 + 4 \times 6$

8. True or False: $10 \times 7 = 70$. ☐ True ☐ False

SET 3 Build harder facts.

9. Use the break-apart model for 9×6.

$8 \times 6 = 48 + 6$

10. 7 tables, 4 chairs each. Total? _____

11. Product-24 fact: _____

12. Why is $7 \times 8 = 54$ wrong?

Check Your Answers!

Try each problem first, then look here to check your work.
It's OK to make mistakes – that's how we learn

1-1 Place Value Review into Thousands

Answers

1. 648
2. $500 + 70 + 6$
3. $500 + 6$
4. three hundred eighteen
5. B
6. 70 and 4
7. False
8. 805
9. 326
10. $700 + 30 + 9$
11. A
12. The 4 is in a different place.

Explanations

1. Place the digits in hundreds, tens, and ones order. The chart shows 6 hundreds, 4 tens, and 8 ones, so the number is 648.
2. Expanded form lists the value of each digit. The model shows 500, 70, and 6, so the number is 576.
3. The 5 is worth 500 and the 6 is worth 6. The 0 tens holds the tens place but does not add value.
4. Read the hundreds first, then the tens and ones. The number 318 is three hundred eighteen.
5. The parts show 4 hundreds, 8 tens, and 2 ones. Put those digits in order to get 482.
6. The 7 is in the tens place, so it is worth 70. The 4 is in the ones place, so it is worth 4.
7. $600 + 2$ makes 602, not 620. The number 620 has 2 tens, so it is $600 + 20$.
8. The 0 must stay in the tens place so the 5 remains in the ones place. The number is 805.
9. The mat shows 3 hundreds, 2 tens, and 6 ones. Put those digits together to write 326.
10. The drawing should show 7 hundreds, 3 tens, and 9 ones. Those place values make $700 + 30 + 9$.
11. The zero tens does not add value. Five hundreds and nine ones make $500 + 9$.
12. In 704, the 4 is worth 4 ones. In 740, the 4 is worth 40, so the numbers are different.

1-2 Counting Patterns, Compare, and Order

Answers

1. 348
2. 542, 552, 562
3. 925
4. B
5. $<$
6. $>$
7. 251, 512, 521
8. B
9. C
10. O, E, E, O
11. Answers vary; for example, 327.
12. False

Explanations

1. Each hop adds 10. Add 10 to 338 to get 348.
2. The pattern counts by 10s. Keep adding 10 each time.
3. The table counts by 100s. Add 100 to 825 to reach 925.
4. Counting by 5s means each step adds 5. Choice B goes $410, 415, 420$.
5. The hundreds match, so compare tens. Three tens is less than eight tens, so $438 < 483$.
6. 709 has 7 hundreds and 690 has 6 hundreds. Seven hundreds is greater, so $709 > 690$.
7. 251 has only 2 hundreds, so it is least. Between 512 and 521, compare tens and ones.
8. The two numbers with 8 hundreds are greatest. Between 845 and 854, 854 has more tens.
9. Even numbers end in $0, 2, 4, 6$, or 8. The number 624 ends in 4, so it is even.
10. Look only at the ones digit. 327 and 905 are odd; 540 and 816 are even.
11. A correct number is greater than 300, less than 350, and ends in $1, 3, 5, 7$, or 9.
12. Both numbers have 8 hundreds, so compare tens. Four tens is less than five tens, so $845 < 854$.

3-1 Equal Groups and Multiplication Meaning

Answers

1. $3 + 3 + 3 + 3 = 12$
2. $5 \times 2 = 10$
3. A
4. True
5. 15 dots
6. B
7. $7 + 7 + 7 = 21$
8. 16 cookies
9. 20 shells
10. $5, 10, 15, 20, 25, 30$
11. B
12. Use $5 + 5 + 5 + 5$ or 4×5.

Explanations

1. There are 4 equal groups with 3 in each group. Add four threes to get 12.

2. The addend 2 appears 5 times. That means 5 equal groups of 2.
3. Equal groups all have the same size. Only $4, 4, 4$ has the same number in every group.
4. The addend 6 is repeated three times. That shows three equal groups of 6.
5. The array has 3 rows with 5 dots in each row. Count $5 + 5 + 5 = 15$.
6. 4 rows of 6 is 4 equal groups of 6. The matching fact is $4 \times 6 = 24$.
7. Three groups of 7 means write three sevens. The total is 21.
8. Each row is an equal group of 8. Two rows make $8 + 8 = 16$.
9. There are 5 equal groups of 4. Count by fours or multiply to get 20.
10. Each team adds 5 players. Six jumps of 5 land on 30.
11. 3×9 can mean 3 equal groups with 9 in each group.
12. $4 + 5$ only adds two numbers. Four groups of 5 need four fives, so the total is 20.

3-0 Grade 3 Preview: Multiplication Facts

Answers

1 14	2 45	3 30	4 B	5 28	6 6	7 48	8 True	9 54

10. 28 chairs
11. Example: $4 \times 6 = 24$.
12. The product is 56.

Explanations

1. Facts with 2 are doubles. Double 7 to get 14.
2. Count by fives nine times: $5, 10, 15, 20, 25, 30, 35, 40, 45$.
3. Six jumps of 5 land on 30. So $6 \times 5 = 30$.
4. 8 groups of 5 make 40. The other products are 35, 45, and 30.
5. The array has 4 rows of 7. Multiply $4 \times 7 = 28$.
6. Ask what number times 6 makes 36. Since $6 \times 6 = 36$, the missing factor is 6.
7. Use $4 \times 6 = 24$, then double it. Eight sixes make 48.
8. Ten groups of 7 make 70. A fact with 10 ends with 0.
9. Break 9 sixes into 8 sixes and 1 more six. Add $48 + 6 = 54$.

10 The tables are equal groups of 4. Seven groups of 4 make 28.

11 Any equal-group fact that makes 24 works, such as 3×8 or 4×6.

12 Use $7 \times 4 = 28$ and double it for 7×8. $28 + 28 = 56$, not 54.

Great job checking your work!

Keep practicing and you'll be a math star!