

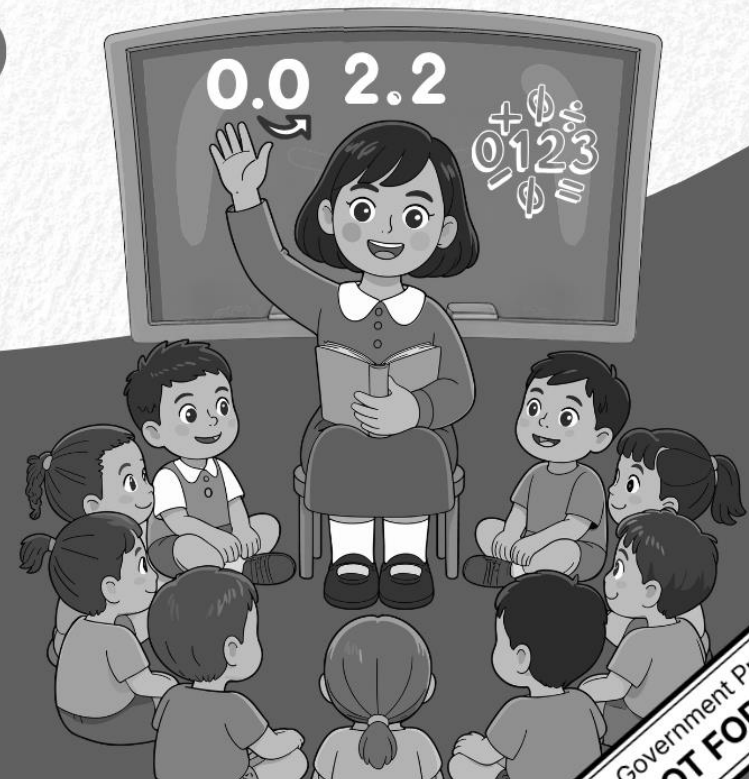


TUTOR'S GUIDE

MATH

GRADE

5



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ARAL-Mathematics Tutor's Guide

Key Stage 2 – Grade 5

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Guidelines for Conducting ARAL Math Sessions

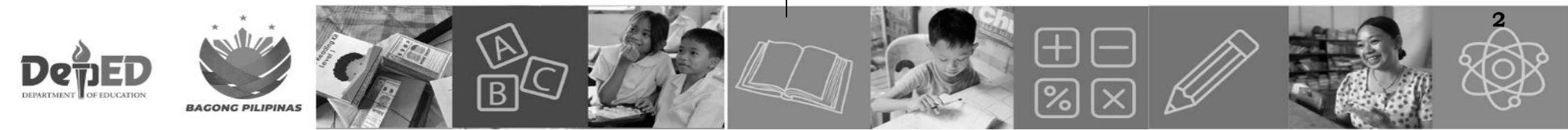
The ARAL Math remediation sessions will follow a practice-based, self-learning approach designed to build a strong foundation in mathematics from the earliest stages. The approach emphasizes independent learning, where students progress through carefully structured worksheets that gradually increase in difficulty. Each new concept is introduced in small, manageable increments, allowing learners to connect new ideas to previously mastered skills.

A central goal of this approach is to identify the point when learners began to have misconceptions or understand concepts poorly so that the gaps can be addressed. Thus, while the worksheets are guided by the Revised K-10 Curriculum, these are not grade-level specific. The gaps in the learners' understanding of mathematics concepts may have occurred in earlier grade levels and it is crucial to address these. Intervention is focused; misconceptions are corrected through guided personal discovery on the part of learners rather than direct explanation from the tutor.

Tutors act as **facilitators** rather than direct instructors. They do not give lectures on various topics or discuss lessons as a class; instead, they guide learners with hints and questions when difficulties arise, encouraging problem-solving and resilience. This approach cultivates both **academic competence** and **self-learning skills**, helping students develop confidence, discipline, and independence.

By combining repetition for mastery, self-paced progression, guided intervention, and targeted correction of misconceptions, this approach for ARAL Math is envisioned to help learners not only excel in mathematics but also acquire lifelong learning habits that extend beyond the learning area.

Important: This is not remediation by reteaching specific lessons. Thus, the tutor will NOT reteach specific lessons. The tutor will simply supervise the learners while working on the worksheets, and intervene only when the learners get stuck in a particular worksheet.





Important Principles:

A. Start with the Basics

The worksheets begin with the most fundamental skills as it is important to ensure that learners master these before moving forward. The worksheets begin with the following fundamental skills:

1. counting and number recognition – learners should confidently recognize numbers, count objects, and understand the concept of quantity
2. basic addition and subtraction – simple operations beginning with small numbers help learners grasp the idea of combining and separating quantities
3. place value awareness – understanding place value lays the groundwork for handling operations on larger numbers
4. patterns and sequencing – recognizing simple patterns builds logical thinking and prepares learners for multiplication, fractions and rations, algebra, geometry, and other topics.

5. shapes and measurement – identifying basic shapes and comparing lengths or sizes develops spatial and comparative reasoning.

B. Incremental Progression

1. Structured worksheets are the main learning tool. These worksheets have been made available to the Department of Education through the One Small Step Forward Foundation.
2. The structured worksheets gradually increase in difficulty in very small steps. Each worksheet introduces only a slight increase in difficulty.
3. New concepts are always linked to what learners have already mastered, preventing gaps in understanding.
4. Structured worksheets provide consistent practice and a clear path of progression.
5. Learners must demonstrate speed and accuracy before progressing, ensuring a solid foundation.





6. Misconceptions are identified early, and tutors guide learners back to simple problems to rebuild understanding.

7. Success at each level motivates learners to persist, reinforcing the belief that effort leads to progress.

Sample worksheets:

Division by 3

Dividing by 3 is grouping the objects in sets of 3.
Consider this:
Paul has 12 apples. He wants to put 3 apples in a plastic bag. How many plastic bags will he need?
To answer this, we group the apples in sets of 3.

There are 4 groups of 3 in 12.
So, Paul will need 4 plastic bags.
The division equation is $12 \div 3 = n$.
So, $12 \div 3 = 4$

Complete the sentences for each picture.

1)
There are ____ groups of 3 in 9.
____ $\div$ 3 = ____.

2)
There are ____ groups of 3 in 15.
____ $\div$ 3 = ____.

3)
There are ____ groups of 3 in 21.
____ $\div$ 3 = ____.

4)
There are ____ groups of 3 in 18.
____ $\div$ 3 = ____.

Addition of Two-digit by One-digit numbers with Regrouping

In adding two-digit and one-digit numbers, line up the ones digits in the rightmost column. Then find the sum following these steps:

1. Add the ones digits. ($5 + 8 = 13$)

2. Write 3 under the ones column and carry 1 to the tens column.

3. Add the tens digits. ($1 + 2 = 3$)

Tens	Ones
1	5
2	8
3	

Tens	Ones
1	5
2	8
3	

Find the sum.

1) $\begin{array}{r} 17 \\ + 3 \\ \hline \end{array}$	3) $\begin{array}{r} 18 \\ + 5 \\ \hline \end{array}$	5) $\begin{array}{r} 25 \\ + 5 \\ \hline \end{array}$	7) $\begin{array}{r} 24 \\ + 6 \\ \hline \end{array}$
2) $\begin{array}{r} 16 \\ + 4 \\ \hline \end{array}$	4) $\begin{array}{r} 19 \\ + 2 \\ \hline \end{array}$	6) $\begin{array}{r} 25 \\ + 5 \\ \hline \end{array}$	8) $\begin{array}{r} 23 \\ + 7 \\ \hline \end{array}$
		9) $\begin{array}{r} 22 \\ + 8 \\ \hline \end{array}$	10) $\begin{array}{r} 36 \\ + 5 \\ \hline \end{array}$
		11) $\begin{array}{r} 35 \\ + 6 \\ \hline \end{array}$	12) $\begin{array}{r} 34 \\ + 7 \\ \hline \end{array}$
		13) $\begin{array}{r} 37 \\ + 4 \\ \hline \end{array}$	14) $\begin{array}{r} 35 \\ + 5 \\ \hline \end{array}$

Equation of a Line

The equation of the line with slope m & y-intercept b is given by:

$y = mx + b$ (slope-intercept form)

So, to graph the equation, we just need to identify the slope & the y-intercept and graph the equation.

Example: Graph the equation $y = -\frac{2}{3}x + 5$

So, $m = -\frac{2}{3}$ & $b = 5$

Identify the slope & the y-intercept of each equation then use them to graph each.

1) $y = \frac{2}{3}x + 2$

$m =$ _____

$b =$ _____

2) $y = \frac{3}{2}x - 3$

$m =$ _____

$b =$ _____

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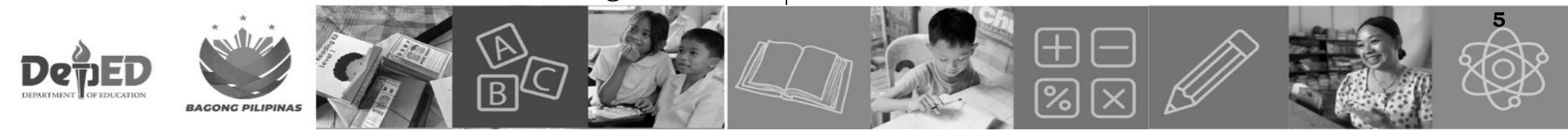
C. Self-paced and Independent Work

1. Learners work on the worksheets individually, discovering solutions and strategies independently.
2. Working on tasks without immediate tutor input builds resilience and belief in the learners' own ability. Learners learn to spot mistakes themselves, which deepens understanding and prevents misconceptions.
3. Self-paced independent work without immediate tutor input develops self-learning habits and confidence in the learners.
4. Learners do not become dependent on tutors for solutions or confirmation of correct answers, which strengthens their confidence in tackling challenges.
5. By working through problems without immediate explanations, learners connect new ideas to prior knowledge more meaningfully.
6. As this approach is self-paced, the tutor should allow a learner to complete as many worksheets as he or she can during a session.

Note that a learner can only advance to the next worksheet if all items on the worksheet he or she is currently working on are completed correctly.

D. Repetition for Mastery

1. Repeated practice until learners achieve speed and accuracy is important. Mastery of each level is required before moving to the next. Mastery through repetition guarantees readiness for the next incremental step.
2. Repetition matters because regular practice helps learners store concepts in long-term memory. Consistent practice ensures learners do not fall back into incorrect methods.
3. Repetition builds fluency which allows learners to instantly recall basic facts without counting or hesitation. This develops speed and accuracy, which are essential for tackling more complex problems later.
4. Success through repeated attempts boosts self-belief and reduces math anxiety.





E. Tutor as Facilitator

1. The approach that is being adopted for ARAL Math is not remediation by reteaching, where tutors reteach certain lessons in the ARAL Math sessions.
2. Tutors do not lecture or provide answers. Instead, they allow learners to discover solutions through practice and reasoning.
3. Struggles and errors highlight where learners have weak understanding or misconceptions, giving tutors a clear point for guided intervention. When learners get stuck, tutors intervene only by asking guiding questions, giving hints or prompts, or pointing learners back to previously mastered concepts, never direct answers.
4. Keen observation by tutors is important. Tutors need to watch for signs of struggle such as repeated errors, hesitation, or frustration.
5. Tutors need to reinforce persistence and effort among learners, motivating them to keep trying until they succeed.

Illustration of Guided Intervention

A. Example 1: $47 - 29 = ?$

A learner is working on a worksheet involving 2-digit subtraction. The learner is unable to do “47-29” and becomes stuck because he or she has not yet fully grasped the concept of borrowing or regrouping.

When does the tutor intervene? When the tutor notices a learner repeatedly hesitating or making the same error (e.g. $7 - 9 = 2$), this signals that the learner is struggling to connect the new concept with previously mastered skills.

How can the tutor intervene effectively? Instead of explaining the full borrowing or regrouping process, the tutor can ask guiding questions:

- *Can you subtract 9 from 7 directly?*
- *What happens when the top number is smaller than the bigger number?*
- *Do you remember what we did when subtracting $13 - 8$?* [The tutor may point the learner back to the worksheet where “13 –





8” was covered, to help him or her recall the idea of regrouping.

Expected outcome: Through these prompts, the learner connects the present challenge to prior knowledge covered by previous worksheets. Through this intervention, the learner recalls the need to borrow and solves the problem independently. **It is important to note that the tutor’s role is not to supply the solution but to nudge the learner toward recall or rediscovery and self-correction.**

This kind of intervention preserves the independence of the learner while ensuring that they do not get stuck in frustration. It is important to strike the balance between providing support and self-learning, which is central to the ARAL Math approach.

B. Example 2: Adding similar fractions

A learner is working on a worksheet with the following problem: “*Maria ate $\frac{3}{8}$ of a cake. Juan ate $\frac{2}{8}$ of the same cake. How much of the cake did they eat together?*”

When does the tutor intervene? When the tutor notices that a learner writes the answer as $\frac{5}{16}$, this signals that the learner has a misconception – that the denominators should be added.

How can the tutor intervene effectively? The tutor should not explain the rule directly. Instead, the tutor can ask guiding questions:

- In a fraction, what does the denominator represent?
- Can you think of a simpler example, like $\frac{1}{4} + \frac{2}{4}$? [The tutor may point the learner back to the worksheet where $\frac{1}{4} + \frac{2}{4}$ was tackled].
- If Maria ate 3 pieces and Juan ate 2 pieces, how many pieces did they eat altogether?
- Does the denominator change when we add fractions of the same whole?
- Why do we keep the denominator the same?

Expected outcome: Through these prompts, the learner realizes that the denominator stays the





same when adding fractions with the same denominators, and corrects the answer to $\frac{5}{8}$.

C. Example 3: Ratios

A learner is working on a worksheet with the following problem: “A recipe needs 2 cups of sugar for every 3 cups of flour. If you have 6 cups of flour, how much sugar do you need?”

When does the tutor intervene? When the tutor notices that a learner incorrectly multiplies $6 \times 2 = 12$, this signals that the learner has not fully grasped ratios.

How can the tutor intervene effectively? The tutor should not explain the rule directly. Instead, the tutor can ask guiding questions:

- What does the ratio 2:3 mean?
- If 3 cups of flour need 2 cups of sugar, what happens if we double the flour to 6 cups?
- Can you write the proportion as a fraction: sugar/flour = $\frac{2}{3}$?

Expected outcome: The learner connects the ratio to proportional reasoning, calculates

correctly, and finds that 6 cups of flour need 4 cups of sugar.

How to Check the Worksheets

1. In this Tutor’s Guide, the answer key to each worksheet is provided.
2. The tutor is directed to use three (3) shapes when going over and marking:

a.  (star)

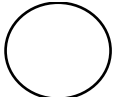
- draw a star at the TOP of a worksheet if ALL items in the worksheet have been answered correctly. A star means the learner got a perfect score; there is no need to place a check mark on every item.

b.  (triangle)

- draw a triangle on a SPECIFIC ITEM if the item has been partially answered correctly (e.g. incomplete answer, wrong spelling, no





c.  (circle)

answer, or not following instructions). At the top of the worksheet, the tutor needs to indicate the number of $\triangle$ s.

- draw a circle on a SPECIFIC ITEM if the answer is WRONG. At the top of the worksheet, the tutor needs to indicate the number of $\bigcirc$ s.

3. The Answer Key is to be used for marking the answers of the learners as CORRECT, PARTIALLY CORRECT, or WRONG. Please note the following:

- Always take a look at the numbering of items in the worksheets and the Answer Key to make sure that these correspond.
- Not all answers indicated in the Answer Key must be taken literally. Tutors need to do

some analysis based on the questions on the worksheet. For example, if the answer on the Answer Key is 5 centimeters and the learner answered 5 cm, the learner's answer can be considered correct.

Such analysis is important especially in higher level worksheets. You may seek advice from the school's Master Teachers or get in touch with the ARAL Secretariat for any questions in this regard.

- The learners must be asked to redo the items that have been marked with $\triangle$ s and $\bigcirc$ s.
- When re-checking the learner's work, CROSS-OUT the circle or triangle that was initially placed on specific items if the learner has already corrected the answer. Cross out the score as well once the learner has answered all the items on the worksheet correctly.

Please note that all items marked with circles and triangles must be done again by the learner until these are answered correctly.

When needed, the tutor should intervene without giving the answer or delivering a lecture.



ARAL Math Grade 5 Worksheet 1

Visualizing Numbers

1. 21,220
2. 12,310
3. 11,321
4. 4,200
5. 10,233
6. 21,112
7. 10,331
8. 4,022
9. 13,201
10. 2,323
11. 3,122
12. 10,240
13. 11,124
14. 2,411
15. 22,110
16. 12,222
17. 11,111
18. 1,312
19. 521
20. 11,303
21. 1,321
22. 13,211
23. 40,111

24. 2,312
25. 11,221
26. 21,212
27. 3,131
28. 12,111
29. 31,211
30. 333
31. 1,501
32. 12,222
33. 12,212
34. 2,322
35. 21,311
36. 3,123
37. 10,331
38. 23,020
39. 423
40. 11,211
41. 30,221
42. 1,412
43. 13,210
44. 234
45. 21,121
46. 80,112
47. 90,210
48. 92,110





ARAL Math Grade 5 Worksheet 2

Visualizing Numbers

1. Draw 1 of 10,000-figure; 2 of 1,000-figure; 3 of 100-figure; 4 of 10-figure; and 5 of 1-figure
2. Draw 2 of 10,000-figure; 3 of 1,000-figure; 4 of 100-figure; 7 of 10-figure; and 6 of 1-figure
3. Draw 3 of 10,000-figure; 4 of 1,000-figure; 1 of 100-figure; and 2 of 1-figure
4. Draw 4 of 10,000-figure; 5 of 1,000-figure; 6 of 100-figure; 7 of 10-figure; and 8 of 1-figure
5. Draw 5 of 10,000-figure; 6 of 1,000-figure; 7 of 100-figure; 8 of 10-figure; and 9 of 1-figure
6. Draw 6 of 10,000-figure; 7 of 1,000-figure; 8 of 100-figure; and 9 of 10-figure
7. Draw 7 of 10,000-figure; 8 of 1,000-figure; 9 of 100-figure; and 1 of 1-figure
8. Draw 8 of 10,000-figure; 9 of 1,000-figure; 1 of 100-figure; and 2 of 10-figure
9. Draw 9 of 10,000-figure; 8 of 1,000-figure; 7 of 100-figure; 6 of 10-figure; and 5 of 1-figure
10. Draw 1 of 10,000-figure; 2 of 100-figure; 3 of 10-figure; and 4 of 1-figure
11. Draw 1 of 10,000-figure; 1 of 1,000-figure; 1 of 100-figure; 1 of 10-figure; and 1 of 1-figure

12. Draw 2 of 10,000-figure; 1 of 1,000-figure; 3 of 100-figure; 4 of 10-figure; and 3 of 1-figure
13. Draw 3 of 10,000-figure; 1 of 1,000-figure; 2 of 100-figure; 1 of 10-figure; and 2 of 1-figure
14. Draw 4 of 10,000-figure; 1 of 1,000-figure; 9 of 100-figure; 8 of 10-figure; and 7 of 1-figure
15. Draw 5 of 10,000-figure; and 5 of 10-figure
16. Draw 6 of 10,000-figure; 6 of 100-figure; and 6 of 1-figure
17. Draw 7 of 10,000-figure; 7 of 100-figure; and 7 of 1-figure
18. Draw 8 of 10,000-figure; 8 of 100-figure; and 8 of 1-figure
19. Draw 9 of 10,000-figure; 9 of 100-figure; and 9 of 1-figure
20. Draw 9 of 10,000-figure; 9 of 1,000-figure; 9 of 100-figure; 9 of 10-figure; and 9 of 1-figure
21. Draw 2 of 10,000-figure; 5 of 1,000-figure; 6 of 100-figure; 7 of 10-figure; and 8 of 1-figure
22. Draw 3 of 10,000-figure; 5 of 1,000-figure; 2 of 100-figure; and 1 of 10-figure
23. Draw 4 of 10,000-figure; 2 of 1,000-figure; 3 of 100-figure; 4 of 10-figure; and 1 of 1-figure
24. Draw 5 of 10,000-figure; 3 of 1,000-figure; 4 of 100-figure; 5 of 10-figure; and 6 of 1-figure



25. Draw 6 of 10,000-figure; 2 of 1,000-figure; and 5 of 100-figure
26. Draw 7 of 10,000-figure; 2 of 1,000-figure; 3 of 100-figure; 4 of 10-figure; and 5 of 1-figure
27. Draw 8 of 10,000-figure; 2 of 1,000-figure; 4 of 100-figure; 5 of 10-figure; and 6 of 1-figure
28. Draw 9 of 10,000-figure; 1 of 1,000-figure; 2 of 100-figure; 3 of 10-figure; and 4 of 1-figure
29. Draw 1 of 10,000-figure; 4 of 1,000-figure; 4 of 100-figure; and 7 of 1-figure
30. Draw 2 of 10,000-figure; 4 of 1,000-figure; 2 of 10-figure; and 4 of 1-figure
31. Draw 3 of 10,000-figure; 3 of 1,000-figure; 3 of 10-figure; and 3 of 1-figure
32. Draw 4 of 10,000-figure; 4 of 1,000-figure; 4 of 100-figure; 4 of 10-figure; and 4 of 1-figure
33. Draw 5 of 10,000-figure; 5 of 1,000-figure; 5 of 100-figure; 5 of 10-figure; and 5 of 1-figure
34. Draw 6 of 10,000-figure; 6 of 1,000-figure; 6 of 100-figure; 6 of 10-figure; and 6 of 1-figure
35. Draw 7 of 10,000-figure; 7 of 1,000-figure; 7 of 100-figure; 7 of 10-figure; and 7 of 1-figure
36. Draw 8 of 10,000-figure; 8 of 1,000-figure; 8 of 100-figure; 8 of 10-figure; and 8 of 1-figure

37. Draw 9 of 10,000-figure; 9 of 1,000-figure; 9 of 10-figure
38. Draw 1 of 10,000-figure; 7 of 1,000-figure; 8 of 100-figure; and 9 of 10-figure
39. Draw 2 of 10,000-figure; 8 of 1,000-figure; 1 of 100-figure; and 8 of 10-figure
40. Draw 3 of 10,000-figure; 9 of 1,000-figure; 3 of 100-figure; and 9 of 10-figure
41. 31,211
42. 3,312
43. 12,123
44. 342
45. 21,221
46. 4,212
47. 10,333
48. 12,113
49. 22,221
50. 11,232
51. 2,411
52. 22,112
53. 524
54. 12,321
55. 1,511
56. 31,211





ARAL Math Grade 5 Worksheet 3

Finding the Value and Place Value of a Digit

1. 50 tens
2. 1 ones
3. 80,000 ten thousands
4. 30,000 ten thousands
5. 70,000 ten thousands
6. 500 hundreds
7. 50,000 ten thousands
8. 80,000 ten thousands
9. 1,000 thousands
10. 20,000 ten thousands
11. 40 tens
12. 60,000 ten thousands
13. 40,000 ten thousands
14. 900 hundreds
15. 80 tens
16. 5,000 thousands
17. 7,000 thousands
18. 100 hundreds
19. 90,000 ten thousands
20. 300 hundreds
21. 3,000 thousands
22. 30,000 ten thousands
23. 300 hundreds

24. 3 ones
25. 30 tens
26. 50,000 ten thousands
27. 5,000 thousands
28. 5 ones
29. 500 hundreds
30. 50 tens
31. 60 tens
32. 6 ones
33. 60,000 ten thousands
34. 6,000 thousands
35. 6,000 thousands
36. 9,000 thousands
37. 90,000 ten thousands
38. 9,000 thousands
39. 900 hundreds
40. 9 ones
41. 2,000 thousands
42. 20,000 ten thousands
43. 2,000 thousands
44. 200 hundreds
45. 2 ones
46. 7,000 thousands
47. 7,000 thousands
48. 700 hundreds





49. 70,000 ten thousands
50. 7,000 thousands
51. 4,000 thousands
52. 4,000 thousands
53. 4,000 thousands
54. 40,000 ten thousands
55. 4 ones
56. 8,000 thousands
57. 8,000 thousands
58. 80,000 ten thousands
59. 80 tens
60. 8,000 thousands

ARAL Math Grade 5 Worksheet 4

Determining the Value of a Digit based on Place Value

1. 9
2. 60,000
3. 50
4. 200
5. 4,000
6. 400
7. 0
8. 2

9. 40,000
10. 9,000
11. 3,000
12. 500
13. 40
14. 6
15. 40
16. 3,000
17. 90,000
18. 500
19. 6
20. 4
21. 200
22. 30
23. 1,000
24. 10,000
25. 7,000
26. 80
27. 2
28. 300
29. 0
30. 600
31. 5
32. 70,000
33. 10





34. 100
35. 0
36. 90
37. 8,000
38. 20,000
39. 5,000
40. 900
41. 1
42. 70
43. 0
44. 400
45. 9,000
46. 3

ARAL Math Grade 5 Worksheet 5
Determining the Value of a Digit based on Place
Value and Vice Versa

8. 4,000
9. 900
10. 3
11. 4
12. 50
13. 70,000
14. 800
15. 100
16. 30,000
17. 4,000
18. 20,000
19. 7
20. 10
21. 700
22. 400
23. 60
24. 40,000
25. 20,000
26. 400
27. 3,000
28. 5
29. 40
30. 40,000
31. 200
32. 800

1. 60,000
2. 400
3. 100,000
4. 4
5. 20
6. 20,000
7. 900





33. 9
34. 60
35. 6,000
36. 10,000
37. 800
38. 9
39. 50
40. 300
41. 60,000
42. 7,000
43. 7
44. 200
45. 40
46. 200
47. 70,000
48. 6
49. 5,000
50. 900

ARAL Math Grade 5 Worksheet 6
Writing Numbers in Words and Vice Versa

1. One thousand, three hundred fifty-seven
2. Thirteen thousand, three hundred thirty-two
3. Twenty-three thousand, seventeen

4. Forty-nine thousand, twelve
5. Sixty-seven thousand, eight hundred eighty-seven
6. Ninety thousand, one hundred eighty-seven
7. Eleven thousand, three hundred twenty
8. Twenty-one thousand, two hundred seven
9. Forty-two thousand, eight hundred ninety-four
10. Thirty-three thousand, six hundred ninety-six
11. Forty-three thousand, four hundred forty-four
12. Fifty-two thousand, one
13. Eighty-eight thousand, twenty-two
14. Sixty-eight thousand, eight hundred forty-eight
15. Eighty-seven thousand, two hundred twenty-six
16. 12,671
17. 75,608
18. 3,092
19. 100,000
20. 13,736
21. 14,244
22. 6,500
23. 58,505
24. 52,101
25. 15,319
26. 777
27. 80,088





28. 9,990
29. 1,110
30. 99,919
31. 3,212
32. 13,013
33. 528
34. 18,652
35. 14,017

ARAL Math Grade 5 Worksheet 7

Comparing Numbers Using Relation Symbols

1. 42,300 = forty-two thousand, three hundred
2. fifteen thousand, six hundred seventy-eight = 15,678
3. 70,005 > sixty-nine thousand, nine hundred ninety-five
4. eight thousand, two hundred four < 8,240
5. 99,900 > ninety-nine thousand, eight hundred ninety-nine
6. twenty-three thousand, four hundred fifty > 23,449
7. 60,060 < sixty thousand, six hundred
8. seventeen thousand, nine hundred ninety-nine = 17,999

9. 5,005 < five thousand, fifty
10. eighty-three thousand, one hundred twenty = 83,120
11. 34,700 < thirty-five thousand
12. ten thousand, ten > 10,009
13. 78,009 < seventy-eight thousand, nine hundred
14. forty-six thousand, seven hundred eighty-nine < 46,790
15. 90,090 > eighty-nine thousand, nine hundred ninety-nine
16. twenty-four thousand, one = 24,001
17. 52,500 > fifty-two thousand, fifty
18. nine thousand, eight hundred seventy-six = 9,876
19. 100,000 > ninety-nine thousand, nine hundred ninety-nine
20. thirty-one thousand, two hundred thirty-five = 31,235
21. 43,500 > forty-three thousand, fifty
22. twenty-seven thousand, four hundred fifty-eight < 27,562
23. 91,200 = ninety-one thousand, two hundred
24. fifty-six thousand, seven hundred eighty < 56,900





25. $33,200 <$ thirty-three thousand, two hundred fifty
26. seventy-four thousand $< 74,089$
27. $98,712 =$ ninety-eight thousand, seven hundred twelve
28. sixty-three thousand, twenty-nine $< 63,432$
29. forty-nine thousand, eight hundred seventy-five $<$ fifty thousand
30. $10,956 =$ ten thousand, nine hundred fifty-six
31. $62,300 <$ sixty-two thousand, seven hundred thirty
32. $75,900 <$ seventy-five thousand, nine hundred one
33. forty-eight thousand, six hundred seventy-two $< 49,672$
34. $100,000 >$ ninety-nine thousand, nine hundred ninety-nine
35. sixty-seven thousand, five hundred four $< 67,790$
36. fifty-two thousand, three hundred seventeen $< 52,326$
37. seventy-six thousand, five hundred forty $< 76,649$
38. eighty-five thousand, six hundred = $85,600$

39. seventy-three thousand, two hundred nineteen $< 73,320$
40. sixty-eight thousand, four hundred thirty-two $< 68,500$

ARAL Math Grade 5 Worksheet 8 **Rounding Off to a Specific Place Value**

1. 87,000
2. 80,000
3. 35,000
4. 80,000
5. 36,000
6. 90,000
7. 90,000
8. 96,000
9. 30,000
10. 63,000
11. 80,000
12. 99,000
13. 50,000
14. 50,000
15. 25,000
16. 46,000
17. 35,000





18. 40,000
19. 44,000
20. 100,000
21. 25,000
22. 3,000
23. 50,000
24. 80,000
25. 40,000
26. 68,000
27. 30,000
28. 44,000
29. 90,000
30. 36,000
31. 80,000
32. 19,000
33. 80,000
34. 29,000
35. 60,000
36. 88,000
37. 40,000
38. 67,000
39. 70,000
40. 24,000
41. 100,000
42. 41,000

43. 60,000
44. 33,000
45. 80,000
46. 22,000
47. 90,000
48. 15,000
49. 90,000
50. 28,000

ARAL Math Grade 5 Worksheet 9

Rounding Off to a Specific Place Value

1. 38,000
2. 70,000
3. 83,000
4. 10,000
5. 96,000
6. 30,000
7. 60,000
8. 70,000
9. 42,000
10. 70,000
11. 24,000
12. 90,000
13. 32,000





14. 90,000
15. 17,000
16. 70,000
17. 49,000
18. 70,000
19. 25,000
20. 80,000
21. 61,000
22. 20,000
23. 93,000
24. 40,000
25. 77,000
26. 52,000
27. 20,000
28. 84,000
29. 30,000
30. 62,000
31. 70,000
32. 34,000
33. 90,000
34. 25,000
35. 50,000
36. 68,000
37. 40,000
38. 95,000

39. 20,000
40. 74,000
41. 20,000
42. 84,000
43. 40,000
44. 59,000
45. 70,000
46. 29,000
47. 90,000
48. 42,000
49. 20,000
50. 78,000
51. 42,000
52. 90,000
53. 24,000
54. 80,000
55. 20,000
56. 70,000
57. 55,000
58. 90,000
59. 35,000
60. 70,000
61. 29,000
62. 60,000
63. 85,000



64. 20,000
65. 93,000
66. 50,000
67. 30,000
68. 80,000
69. 38,000
70. 70,000
71. 22,000
72. 100,000
73. 15,000
74. 80,000
75. 39,000

ARAL Math Grade 5 Worksheet 10
Ordering Numbers in Increasing or Decreasing
Order

1. 9,876, 12,890, 33,111, 45,267, 78,345
2. 14,567, 21,089, 58,901, 63,452, 76,234
3. 9,234, 18,900, 31,246, 56,789, 72,345
4. 15,432, 27,654, 39,876, 60,111, 84,321
5. 3,456, 19,008, 47,890, 66,220, 92,321
6. 7,609, 14,375, 38,291, 59,832, 72,468
7. 11,234, 28,136, 49,002, 65,879, 93,540
8. 12,345, 23,456, 50,777, 67,210, 81,900
9. 5,678, 16,432, 34,560, 73,245, 99,001

10. 2,997, 24,809, 44,210, 68,765, 80,312
11. 6,543, 15,678, 30,230, 32,456, 89,001
12. 9,432, 29,876, 51,009, 61,234, 83,150
13. 7,890, 18,234, 26,543, 45,678, 90,876
14. 90,234, 77,888, 54,321, 23,456, 12,678
15. 81,276, 69,890, 30,018, 21,345, 4,567
16. 85,430, 60,501, 42,160, 17,999, 7,250
17. 72,604, 64,578, 38,900, 19,871, 3,210
18. 91,108, 58,340, 45,620, 26,700, 7,890
19. 85,780, 68,120, 39,456, 12,305, 5,678
20. 94,230, 50,400, 28,630, 13,015, 6,789
21. 73,892, 60,870, 41,111, 19,234, 2,345
22. 92,800, 63,012, 44,130, 27,540, 8,765
23. 80,302, 57,160, 37,450, 14,098, 6,271
24. 95,432, 67,210, 31,276, 20,543, 9,876
25. 73,561, 62,700, 35,420, 16,203, 8,910
26. 88,888, 77,770, 49,999, 22,011, 3,333
27. 5,892, 14,650, 36,741, 63,409, 87,213
28. 9,876, 28,191, 41,265, 54,320, 73,564
29. 2,345, 12,987, 31,509, 65,432, 88,210
30. 3,210, 16,245, 47,382, 78,901, 91,876
31. 5,678, 19,876, 22,134, 44,209, 83,451
32. 7,890, 25,694, 39,456, 60,321, 72,813
33. 11,986, 17,308, 36,519, 48,672, 92,145
34. 2,478, 13,567, 55,820, 67,310, 84,729
35. 6,542, 9,234, 29,654, 41,897, 80,123
36. 4,567, 18,309, 30,129, 75,460, 89,812





37. 8,321, 14,679, 26,740, 53,104, 61,908
38. 7,456, 15,870, 37,695, 68,234, 92,001
39. 3,218, 10,345, 23,167, 47,820, 85,603
40. 91,672, 66,789, 45,321, 14,234, 2,109
41. 78,456, 63,210, 39,805, 21,987, 16,432
42. 74,321, 52,640, 19,876, 8,905, 3,450
43. 87,654, 60,978, 28,109, 12,345, 7,890
44. 93,215, 41,876, 25,634, 11,987, 3,210
45. 70,432, 55,671, 29,876, 18,345, 6,543
46. 61,203, 48,765, 23,111, 9,876, 4,890
47. 85,321, 69,432, 30,987, 12,654, 8,765
48. 74,890, 51,360, 22,199, 14,298, 7,654
49. 99,123, 65,432, 28,890, 13,567, 5,678
50. 61,054, 43,210, 16,789, 9,012, 2,345
51. 89,432, 55,876, 31,210, 12,456, 7,109
52. 77,210, 48,903, 24,568, 19,001, 3,867

7. 9,321, 13,579, 22,710, 51,903, 62,480
8. 6,544, 15,899, 31,245, 42,876, 86,100
9. 4,321, 12,345, 29,876, 68,540, 77,709
10. 7,899, 18,765, 23,456, 59,320, 90,011
11. 3,468, 16,052, 22,477, 71,095, 84,230
12. 2,789, 19,345, 30,210, 50,901, 63,654
13. 8,234, 13,912, 26,135, 41,678, 55,400
14. 91,203, 73,999, 42,567, 15,678, 6,321
15. 62,300, 34,210, 21,987, 11,456, 8,765
16. 88,120, 60,234, 27,799, 13,045, 7,890
17. 76,891, 40,300, 18,654, 9,210, 2,345
18. 93,100, 58,432, 33,890, 24,567, 6,789
19. 73,450, 41,222, 16,980, 12,309, 5,678
20. 64,753, 50,670, 29,301, 11,045, 3,210
21. 90,888, 25,410, 14,999, 7,899, 6,654
22. 69,000, 52,109, 31,875, 17,650, 2,456
23. 70,555, 44,321, 20,110, 9,876, 1,234
24. 96,010, 61,432, 27,890, 13,245, 8,679
25. 72,678, 53,210, 38,421, 19,805, 4,999
26. 85,910, 66,777, 47,123, 22,344, 3,567
27. 7,890, 12,430, 33,456, 54,210, 61,005
28. 15,990, 26,789, 41,305, 72,450, 83,120
29. 5,678, 18,765, 32,345, 40,098, 60,321
30. 8,945, 16,870, 27,610, 33,450, 73,230
31. 2,345, 19,764, 44,299, 57,890, 68,120
32. 7,654, 15,320, 22,901, 30,870, 95,210
33. 4,678, 11,245, 29,310, 63,500, 84,760

ARAL Math Grade 5 Worksheet 11

Ordering Numbers in Increasing or Decreasing Order

1. 7,654, 12,208, 23,110, 65,432, 98,765
2. 4,567, 15,678, 27,890, 33,210, 72,901
3. 5,432, 9,876, 16,789, 24,302, 81,234
4. 7,678, 14,234, 27,345, 39,800, 60,501
5. 2,345, 11,789, 30,456, 45,610, 91,230
6. 8,910, 17,654, 25,678, 44,333, 70,123





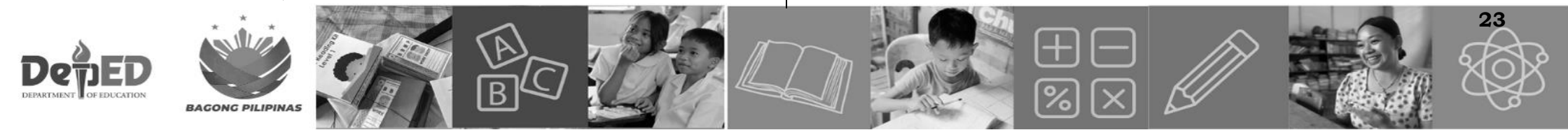
34. 5,432, 12,345, 36,543, 90,876, 111,000
35. 3,456, 18,999, 23,467, 51,230, 76,890
36. 9,123, 21,078, 34,215, 67,890, 78,345
37. 6,789, 17,231, 26,543, 39,876, 88,654
38. 3,567, 14,678, 21,340, 59,890, 74,321
39. 10,987, 22,145, 32,210, 48,765, 75,001
40. 93,210, 66,543, 31,678, 23,890, 4,567
41. 91,980, 75,432, 29,110, 18,765, 2,345
42. 85,600, 64,321, 49,210, 13,457, 7,890
43. 91,234, 67,890, 44,560, 30,111, 25,678
44. 72,901, 52,430, 33,210, 19,876, 8,765
45. 97,654, 68,765, 42,321, 22,334, 10,998
46. 90,123, 58,432, 26,789, 14,567, 3,210
47. 70,900, 56,432, 31,110, 24,789, 11,678
48. 84,321, 29,876, 17,999, 8,345, 6,234
49. 99,001, 47,890, 36,543, 22,111, 5,432
50. 77,890, 28,765, 12,456, 6,321, 3,210
51. 64,200, 49,876, 38,901, 15,678, 2,987
52. 92,310, 80,123, 33,450, 24,567, 6,789

ARAL Math Grade 5 Worksheet 12

Multiplying Numbers up to Thousands

1. $79 \times 45 = 3,555$
2. $123 \times 20 = 2,460$
3. $111 \times 22 = 2,442$
4. $3 \times 77 = 231$
5. $687 \times 2 = 1,374$

6. $974 \times 32 = 31,168$
7. $13 \times 67 = 871$
8. $110 \times 32 = 3,520$
9. $456 \times 21 = 9,576$
10. $147 \times 92 = 13,524$
11. $213 \times 74 = 15,762$
12. $999 \times 11 = 10,989$
13. $999 \times 55 = 54,945$
14. $325 \times 32 = 10,400$
15. $987 \times 41 = 40,467$
16. $698 \times 65 = 45,370$
17. $987 \times 25 = 24,675$
18. $581 \times 99 = 57,519$
19. $229 \times 12 = 2,748$
20. $412 \times 96 = 39,552$
21. $339 \times 36 = 12,204$
22. $769 \times 41 = 31,529$
23. $668 \times 78 = 52,104$
24. $901 \times 55 = 49,555$
25. $888 \times 11 = 9,768$
26. $634 \times 12 = 7,608$
27. $406 \times 46 = 18,676$
28. $800 \times 64 = 51,200$
29. $422 \times 50 = 21,100$
30. $247 \times 52 = 12,844$
31. $536 \times 34 = 18,224$
32. $999 \times 99 = 98,901$





ARAL Math Grade 5 Worksheet 13

Multiplying Numbers up to Thousands and Solving Word Problems Involving Multiplication

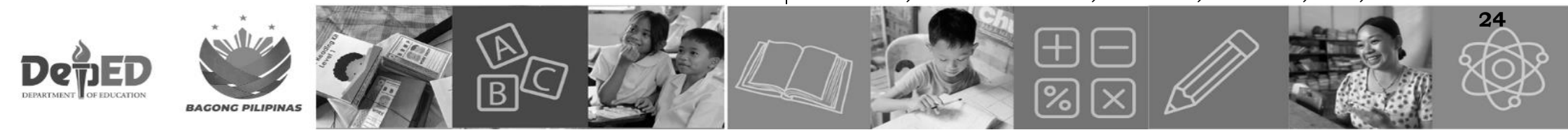
1. $2 \times 26 = 52$
2. $34 \times 14 = 476$
3. $234 \times 45 = 10,530$
4. $882 \times 23 = 20,286$
5. $134 \times 11 = 1,474$
6. $204 \times 13 = 2,652$
7. $8 \times 32 = 256$
8. $436 \times 16 = 6,976$
9. $251 \times 64 = 16,064$
10. $422 \times 24 = 10,128$
11. $324 \times 19 = 6,156$
12. $218 \times 76 = 16,568$
13. $198 \times 31 = 6,138$
14. $189 \times 42 = 7,938$
15. $199 \times 12 = 2,388$
16. $315 \times 36 = 11,340$
17. Angelo and 9 friends = 10 people
 $10 \times \text{P}7 = \text{P}70$
18. $17 \text{ people} \times \text{P}20 = \text{P}340$
19. Grandmother's age = $28 \times 3 = 84$ years old
20. $999 \text{ soldiers} \times 99 \text{ bullets} = 98,901 \text{ bullets}$
21. $85 \text{ gardeners} \times \text{P}950 = \text{P}80,750$
22. $912 \text{ people} \times \text{P}15 = \text{P}13,680$

23. Yearly collection: $\text{P}13,680 \times 52 \text{ weeks} = \text{P}711,360$
24. $32 \text{ people} \times 6 \text{ feet} = 192 \text{ feet}$
25. Weekly donation: $926 \times \text{P}6 = \text{P}5,556$
Yearly donation: $\text{P}5,556 \times 52 = \text{P}288,912$

ARAL Math Grade 5 Worksheet 14

Estimating Products and Solving Word Problems Involving Multiplication

1. $240 \times 63 \approx 200 \times 60 = 12,000$
2. $1,424 \times 89 \approx 1,000 \times 90 = 90,000$
3. $4,386 \times 73 \approx 4,000 \times 70 = 280,000$
4. $9,307 \times 308 \approx 9,000 \times 300 = 2,700,000$
5. $5,138 \times 49 \approx 5,000 \times 50 = 250,000$
6. $7,246 \times 245 \approx 7,000 \times 200 = 1,400,000$
7. $5,015 \times 527 \approx 5,000 \times 500 = 2,500,000$
8. $3,615 \times 413 \approx 4,000 \times 400 = 1,600,000$
9. $966 \times 876 \approx 1,000 \times 900 = 900,000$
10. $5,220 \times 642 \approx 5,000 \times 600 = 3,000,000$
11. $735 \times 968 \approx 700 \times 1,000 = 700,000$
12. $6,531 \times 127 \approx 7,000 \times 100 = 700,000$
13. $2,271 \times 282 \approx 2,000 \times 300 = 600,000$
14. $8,284 \times 451 \approx 8,000 \times 500 = 4,000,000$
15. $9,978 \times 646 \approx 10,000 \times 600 = 6,000,000$
16. $5,475 \times 708 \approx 5,000 \times 700 = 3,500,000$
17. $3,833 \times 95 \approx 4,000 \times 100 = 400,000$
18. $1,976 \times 965 \approx 2,000 \times 1,000 = 2,000,000$





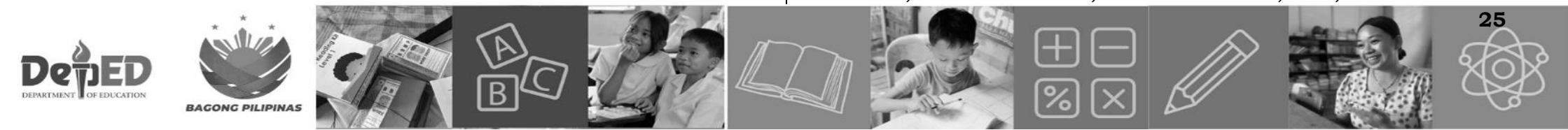
19. $983 \times 61 \approx 1,000 \times 60 = 60,000$
20. $5,419 \times 638 \approx 5,000 \times 600 = 3,000,000$
21. $3,357 \times 28 \approx 3,000 \times 30 = 90,000$
22. $768 \times 115 \approx 800 \times 100 = 80,000$
23. $4,321 \times 890 \approx 4,000 \times 900 = 3,600,000$
24. $446 \times 325 \approx 400 \times 300 = 120,000$
25. $5,924 \times 45 \approx 6,000 \times 50 = 300,000$
26. $1,010 \times 333 \approx 1,000 \times 300 = 300,000$
27. $7,456 \times 422 \approx 7,000 \times 400 = 2,800,000$
28. $8,326 \times 438 \approx 8,000 \times 400 = 3,200,000$
29. $4,295 \times 368 \approx 4,000 \times 400 = 1,600,000$
30. $1,661 \times 22 \approx 2,000 \times 20 = 40,000$
31. $6,320 \times 34 \approx 6,000 \times 30 = 180,000$
32. $3,276 \times 52 \approx 3,000 \times 50 = 150,000$
33. $6,439 \times 838 \approx 6,000 \times 800 = 4,800,000$
34. $368 \times 230 \approx 400 \times 200 = 80,000$
35. $1,589 \times 137 \approx 2,000 \times 100 = 200,000$
36. $7,258 \times 603 \approx 7,000 \times 600 = 4,200,000$
37. $1,393 \times 656 \approx 1,000 \times 700 = 700,000$
38. $6,973 \times 52 \approx 7,000 \times 50 = 350,000$
39. $9,365 \times 257 \approx 9,000 \times 300 = 2,700,000$
40. $3,359 \times 369 \approx 3,000 \times 400 = 1,200,000$
41. $8,112 \times 578 \approx 8,000 \times 600 = 4,800,000$
42. $5,372 \times 974 \approx 5,000 \times 1,000 = 5,000,000$
43. $4,222 \times 16 \approx 4,000 \times 20 = 80,000$
44. $3,355 \times 234 \approx 3,000 \times 200 = 600,000$
45. $8,124 \times 576 \approx 8,000 \times 600 = 4,800,000$

46. $2,435 \times 776 \approx 2,000 \times 800 = 1,600,000$

ARAL Math Grade 5 Worksheet 15

Estimating Products and Solving Word Problems Involving Multiplication

1. $126 \times 873 \approx 100 \times 900 = 90,000$
2. $639 \times 13 \approx 600 \times 10 = 6,000$
3. $5,245 \times 932 \approx 5,000 \times 900 = 4,500,000$
4. $2,456 \times 567 \approx 2,000 \times 600 = 1,200,000$
5. $3,658 \times 987 \approx 4,000 \times 1,000 = 4,000,000$
6. $6,234 \times 75 \approx 6,000 \times 80 = 480,000$
7. $897 \times 43 \approx 900 \times 40 = 36,000$
8. $6,234 \times 557 \approx 6,000 \times 600 = 3,600,000$
9. $7,789 \times 240 \approx 8,000 \times 200 = 1,600,000$
10. $8,438 \times 768 \approx 8,000 \times 800 = 6,400,000$
11. $4,435 \times 12 \approx 4,000 \times 10 = 40,000$
12. $6,436 \times 561 \approx 6,000 \times 600 = 3,600,000$
13. $6,034 \times 22 \approx 6,000 \times 20 = 120,000$
14. $6,258 \times 10 \approx 6,000 \times 10 = 60,000$
15. $570 \times 912 \approx 600 \times 900 = 540,000$
16. $4,457 \times 240 \approx 4,000 \times 200 = 800,000$
17. $735 \times 128 \approx 700 \times 100 = 70,000$
18. $9,346 \times 47 \approx 9,000 \times 50 = 450,000$
19. $3,222 \times 705 \approx 3,000 \times 700 = 2,100,000$
20. $8,257 \times 67 \approx 8,000 \times 70 = 560,000$
21. $2,046 \times 124 \approx 2,000 \times 100 = 200,000$
22. $7,005 \times 900 \approx 7,000 \times 900 = 6,300,000$





ARAL Math Grade 5 Worksheet 16

Multiplying Mentally

23. $8,246 \times 257 \approx 8,000 \times 300 = 2,400,000$
24. $1,540 \times 239 \approx 2,000 \times 200 = 400,000$
25. $1,366 \times 99 \approx 1,000 \times 100 = 100,000$
26. $6,280 \times 235 \approx 6,000 \times 200 = 1,200,000$
27. $124 \text{ pencils} \times 21 \text{ days} \approx 100 \times 20 = 2,000$
pencils
28. $274 \text{ persons} \times 25 \text{ days} \approx 300 \times 30 = 9,000$
persons
29. $1,776 \text{ people} \times 32 \text{ weeks} \approx 2,000 \times 30 = 60,000$
people
30. $326 \text{ packets} \times 32 \text{ stickers} \approx 300 \times 30 = 9,000$
stickers
31. $23 \text{ candy bars} \times 116 \text{ days} \approx 20 \times 100 = 2,000$
candy bars
32. $2,010 \text{ sacks} \times 79 \text{ mangoes} \approx 2,000 \times 80 =$
 $160,000 \text{ mangoes}$
33. $5 \text{ boxes} \times \text{P}48 \approx 5 \times \text{P}50 = \text{P}250$
 $12 \text{ bottles} \times \text{P}23 \approx 10 \times \text{P}20 = \text{P}200$
Cheaper: Softdrinks (about P200)
34. $23 \text{ bags} \times 102 \text{ jolens} \approx 20 \times 100 = 2,000 \text{ jolens}$
35. $135 \text{ arrangements} \times 26 \text{ flowers} \approx 100 \times 30 =$
 $3,000 \text{ flowers}$
36. $250 \text{ crayons} \times \text{P}16 \approx 300 \times \text{P}20 = \text{P}6,000$

1. $7 \times 6 = 42$
2. $3 \times 8 = 24$
3. $5 \times 12 = 60$
4. $10 \times 4 = 40$
5. $12 \times 6 = 72$
6. $14 \times 3 = 42$
7. $23 \times 2 = 46$
8. $14 \times 11 = 154$
9. $22 \times 9 = 198$
10. $13 \times 12 = 156$
11. $18 \times 7 = 126$
12. $24 \times 6 = 144$
13. $15 \times 12 = 180$
14. $22 \times 5 = 110$
15. $17 \times 9 = 153$
16. $26 \times 4 = 104$
17. $19 \times 8 = 152$
18. $21 \times 7 = 147$
19. $13 \times 11 = 143$
20. $16 \times 10 = 160$
21. $18 \times 5 = 90$
22. $24 \times 4 = 96$
23. $12 \times 9 = 108$
24. $14 \times 6 = 84$





25. $20 \times 7 = 140$
26. $16 \times 9 = 144$
27. $15 \times 7 = 105$
28. $17 \times 5 = 85$
29. $13 \times 8 = 104$
30. $11 \times 12 = 132$

ARAL Math Grade 5 Worksheet 17

Multiplying Mentally

1. $64 \times 3 = 192$
2. $13 \times 2 = 26$
3. $21 \times 7 = 147$
4. $12 \times 8 = 96$
5. $15 \times 4 = 60$
6. $23 \times 5 = 115$
7. $13 \times 10 = 130$
8. $11 \times 9 = 99$
9. $10 \times 12 = 120$
10. $25 \times 3 = 75$
11. $15 \times 12 = 180$
12. $13 \times 11 = 143$
13. $14 \times 13 = 182$
14. $12 \times 14 = 168$
15. $22 \times 9 = 198$
16. $18 \times 2 = 36$
17. $27 \times 3 = 81$
18. $16 \times 5 = 80$

19. $24 \times 2 = 48$
20. $19 \times 3 = 57$

ARAL Math Grade 5 Worksheet 18

Division

1. $554 \div 2 = 277$
2. $1,111 \div 11 = 101$
3. $252 \div 4 = 63$
4. $2,838 \div 55 = 51 \text{ R}33$
5. $3,523 \div 26 = 135 \text{ R}13$
6. $5,890 \div 95 = 62$
7. $3,794 \div 14 = 271$
8. $8,410 \div 22 = 382 \text{ R}6$
9. $8,120 \div 54 = 150 \text{ R}20$
10. $7,960 \div 60 = 132 \text{ R}40$
11. $6,500 \div 25 = 260$
12. $8,460 \div 56 = 151 \text{ R}4$
13. $236 \div 59 = 4$
14. $9,234 \div 38 = 243$
15. $4,164 \div 87 = 47 \text{ R}75$
16. $2,287 \div 60 = 38 \text{ R}7$



ARAL Math Grade 5 Worksheet 19

Division

1. $350 \div 25 = 14$
2. $1,456 \div 56 = 26$
3. $288 \div 9 = 32$
4. $2,732 \div 42 = 65 \text{ R}2$
5. $562 \div 10 = 56 \text{ R}2$
6. $8,268 \div 81 = 102 \text{ R}6$
7. $786 \div 12 = 65 \text{ R}6$
8. $4,293 \div 33 = 130 \text{ R}3$
9. $9,268 \div 68 = 136 \text{ R}20$
10. $9,003 \div 30 = 300 \text{ R}3$
11. $2,348 \div 68 = 34 \text{ R}36$
12. $9,244 \div 99 = 93 \text{ R}37$
13. $1,290 \div 32 = 40 \text{ R}10$
14. $354 \div 6 = 59$
15. $3,168 \div 44 = 72$
16. $5,084 \div 82 = 62$

ARAL Math Grade 5 Worksheet 20

Dividing Mentally by Tens, Hundreds, or Thousands

1. $47 \div 10 = 4 \text{ R} 7$
2. $356 \div 10 = 35 \text{ R} 6$

3. $842 \div 10 = 84 \text{ R} 2$
4. $3,729 \div 10 = 372 \text{ R} 9$
5. $645 \div 100 = 6 \text{ R} 45$
6. $2,431 \div 100 = 24 \text{ R} 31$
7. $7,058 \div 100 = 70 \text{ R} 58$
8. $8,410 \div 100 = 84 \text{ R} 10$
9. $6,789 \div 1,000 = 6 \text{ R} 789$
10. $9,305 \div 1,000 = 9 \text{ R} 305$
11. $83 \div 10 = 8 \text{ R} 3$
12. $508 \div 10 = 50 \text{ R} 8$
13. $7,296 \div 10 = 729 \text{ R} 6$
14. $1,652 \div 100 = 16 \text{ R} 52$
15. $5,734 \div 100 = 57 \text{ R} 34$
16. $9,876 \div 100 = 98 \text{ R} 76$
17. $4,528 \div 1,000 = 4 \text{ R} 528$
18. $6,931 \div 1,000 = 6 \text{ R} 931$
19. $2,145 \div 10 = 214 \text{ R} 5$
20. $4,378 \div 100 = 43 \text{ R} 78$
21. $3,248 \div 10 = 324 \text{ R} 8$
22. $87 \div 10 = 8 \text{ R} 7$
23. $6,540 \div 100 = 65 \text{ R} 40$
24. $742 \div 100 = 7 \text{ R} 42$
25. $9,163 \div 10 = 916 \text{ R} 3$
26. $58 \div 10 = 5 \text{ R} 8$
27. $4,389 \div 1,000 = 4 \text{ R} 389$
28. $635 \div 100 = 6 \text{ R} 35$
29. $2,916 \div 10 = 291 \text{ R} 6$





30. $7,805 \div 100 = 78 \text{ R } 5$
31. $3,478 \div 1,000 = 3 \text{ R } 478$
32. $96 \div 10 = 9 \text{ R } 6$
33. $8,120 \div 100 = 81 \text{ R } 20$
34. $419 \div 10 = 41 \text{ R } 9$
35. $5,233 \div 100 = 52 \text{ R } 33$
36. $2,807 \div 1,000 = 2 \text{ R } 807$
37. $73 \div 10 = 7 \text{ R } 3$
38. $6,946 \div 100 = 69 \text{ R } 46$
39. $8,753 \div 10 = 875 \text{ R } 3$
40. $362 \div 100 = 3 \text{ R } 62$
41. $1,502 \div 10 = 150 \text{ R } 2$
42. $7,634 \div 1,000 = 7 \text{ R } 634$
43. $45 \div 10 = 4 \text{ R } 5$
44. $4,271 \div 100 = 42 \text{ R } 71$
45. $5,019 \div 1,000 = 5 \text{ R } 19$
46. $312 \div 10 = 31 \text{ R } 2$

ARAL Math Grade 5 Worksheet 21
Dividing Mentally by Tens, Hundreds, or
Thousands

1. $64 \div 10 = 6 \text{ R } 4$
2. $583 \div 100 = 5 \text{ R } 83$
3. $2,417 \div 10 = 241 \text{ R } 7$
4. $7,300 \div 100 = 73$

5. $89 \div 10 = 8 \text{ R } 9$
6. $1,608 \div 100 = 16 \text{ R } 8$
7. $4,251 \div 1,000 = 4 \text{ R } 251$
8. $35 \div 10 = 3 \text{ R } 5$
9. $782 \div 100 = 7 \text{ R } 82$
10. $3,964 \div 1,000 = 3 \text{ R } 964$
11. $147 \div 10 = 14 \text{ R } 7$
12. $6,470 \div 100 = 64 \text{ R } 70$
13. $2,039 \div 1,000 = 2 \text{ R } 39$
14. $92 \div 10 = 9 \text{ R } 2$
15. $5,686 \div 100 = 56 \text{ R } 86$
16. $276 \div 10 = 27 \text{ R } 6$
17. $8,503 \div 1,000 = 8 \text{ R } 503$
18. $608 \div 100 = 6 \text{ R } 8$
19. $4,715 \div 10 = 471 \text{ R } 5$
20. $1,100 \div 100 = 11$
21. $7,842 \div 1,000 = 7 \text{ R } 842$
22. $53 \div 10 = 5 \text{ R } 3$
23. $3,369 \div 100 = 33 \text{ R } 69$
24. $990 \div 10 = 99$
25. $6,024 \div 100 = 60 \text{ R } 24$
26. $2,867 \div 1,000 = 2 \text{ R } 867$
27. $87 \div 10 = 8 \text{ R } 7$
28. $2,935 \div 100 = 29 \text{ R } 35$
29. $4,607 \div 1,000 = 4 \text{ R } 607$
30. $153 \div 10 = 15 \text{ R } 3$
31. $6,843 \div 100 = 68 \text{ R } 43$





32. $9,264 \div 1,000 = 9 \text{ R}264$
33. $46 \div 10 = 4 \text{ R}6$
34. $1,472 \div 100 = 14 \text{ R}72$
35. $3,719 \div 10 = 371 \text{ R}9$
36. $5,368 \div 1,000 = 5 \text{ R}368$
37. $94 \div 10 = 9 \text{ R}4$
38. $7,126 \div 100 = 71 \text{ R}26$
39. $2,584 \div 10 = 258 \text{ R}4$
40. $8,742 \div 1,000 = 8 \text{ R}742$
41. $329 \div 10 = 32 \text{ R}9$
42. $4,896 \div 100 = 48 \text{ R}96$
43. $6,072 \div 1,000 = 6 \text{ R}72$
44. $128 \div 10 = 12 \text{ R}8$
45. $3,845 \div 100 = 38 \text{ R}45$
46. $9,851 \div 1,000 = 9 \text{ R}851$
47. $61 \div 10 = 6 \text{ R}1$
48. $7,963 \div 100 = 79 \text{ R}63$
49. $2,765 \div 1,000 = 2 \text{ R}765$
50. $483 \div 10 = 48 \text{ R}3$
51. $4,821 \div 10 = 482 \text{ R}1$
52. $6,423 \div 100 = 64 \text{ R}23$
53. $7,914 \div 1,000 = 7 \text{ R}914$
54. $135 \div 10 = 13 \text{ R}5$
55. $8,760 \div 100 = 87 \text{ R}60$
56. $3,254 \div 1,000 = 3 \text{ R}254$
57. $72 \div 10 = 7 \text{ R}2$
58. $6,985 \div 100 = 69 \text{ R}85$

59. $1,265 \div 1,000 = 1 \text{ R}265$
60. $9,308 \div 10 = 930 \text{ R}8$
61. $5,943 \div 100 = 59 \text{ R}43$
62. $2,437 \div 1,000 = 2 \text{ R}437$
63. $84 \div 10 = 8 \text{ R}4$
64. $4,672 \div 100 = 46 \text{ R}72$
65. $7,561 \div 1,000 = 7 \text{ R}561$
66. $216 \div 10 = 21 \text{ R}6$
67. $3,817 \div 100 = 38 \text{ R}17$
68. $9,402 \div 1,000 = 9 \text{ R}402$
69. $58 \div 10 = 5 \text{ R}8$
70. $6,239 \div 100 = 62 \text{ R}39$

ARAL Math Grade 5 Worksheet 22

Estimating Quotients

1. c. $900 \div 3 = 300$
2. b. $420 \div 7 = 60$
3. a. $150 \div 3 = 50$
4. c. $300 \div 5 = 60$
5. c. $700 \div 7 = 100$
6. c. $810 \div 9 = 90$
7. b. $1,000 \div 5 = 200$
8. b. $1,500 \div 5 = 300$
9. c. $1,800 \div 30 = 60$
10. a. $6,000 \div 30 = 200$
11. c. $7,000 \div 7 = 1,000$





12. a. $8,000 \div 4 = 2,000$
13. a. $1,200 \div 10 = 120$ OR b. $1,200 \div 12$
14. a. $800 \div 80 = 10$
15. b. $810 \div 90 = 9$
16. b. 100
17. a. 50
18. c. 80
19. a. 100
20. b. 200
21. b. 100
22. c. 1,000
23. a. 1,000
24. b. 100
25. c. 100
26. a. 50
27. a. 90
28. b. 10
29. b. 10
30. c. 100
31. $261 \div 5 \approx 250 \div 5 = 50$
32. $168 \div 9 \approx 180 \div 9 = 20$
33. $2,985 \div 6 \approx 3,000 \div 6 = 500$
34. $436 \div 4 \approx 440 \div 4 = 110$
35. $296 \div 4 \approx 280 \div 4 = 70$
36. $723 \div 6 \approx 720 \div 6 = 120$
37. $417 \div 2 \approx 400 \div 2 = 200$
38. $331 \div 7 \approx 350 \div 7 = 50$

39. $888 \div 3 \approx 900 \div 3 = 300$
40. $4,047 \div 2 \approx 4,000 \div 2 = 2,000$
41. $2,452 \div 8 \approx 2,400 \div 8 = 300$
42. $1,311 \div 7 \approx 1,400 \div 7 = 200$
43. $9,344 \div 9 \approx 9,000 \div 9 = 1,000$
44. $1,597 \div 83 \approx 1,600 \div 80 = 20$
45. $1,197 \div 42 \approx 1,200 \div 40 = 30$

ARAL Math Grade 5 Worksheet 23

Division of Whole Numbers

1. B, 175
2. B, 300
3. B, 200
4. B, 80
5. A, 200
6. A, 400
7. A, 300
8. C, 400
9. C, 850
10. B, 1,420
11. B, 400
12. B, 800
13. A, 900
14. A, 150
15. A, 800
16. A, 200
17. C, 800





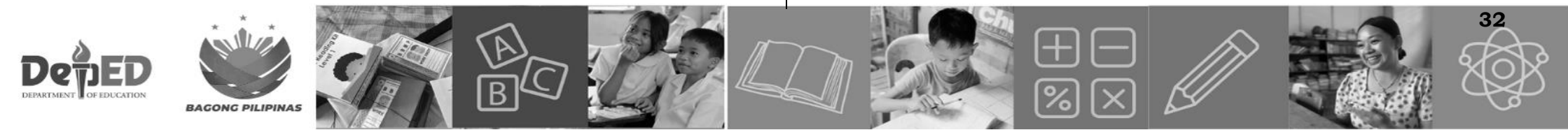
18. A, 540
19. C, 300
20. B, 700
21. B, 225
22. A, 500
23. B, 600
24. B, 550
25. B, 1,400
26. A, 700
27. B, 1,100
28. A, 120
29. B, 600
30. A, 775
31. B, 1,020
32. A, 200
33. C, 1,350
34. B, 125
35. B, 929
36. 230
37. 150
38. 550
39. 550
40. 950
41. 2,000
42. 1,500
43. 900
44. 700

45. 750
46. 800
47. 700
48. 700
49. 1,400
50. 150

ARAL Math Grade 5 Worksheet 24

Division of Whole Numbers

1. ₱91 each
2. 12 hours
3. ₱70 each
4. ₱180 each
5. 15 twenty-peso bills
6. 7 five-peso coins
7. 130 pews
8. ₱4,817 each
9. ₱273 each
10. ₱300
11. ₱532 each
12. 154 kg
13. ₱120 each
14. ₱120 each
15. ₱210 each
16. ₱348 each





ARAL Math Grade 5 Worksheet 25

Estimating Quotient

1. 80 times
2. 70 times
3. 900 times
4. 200 times
5. 80 baluts
6. 70 baluts
7. 60 baluts
8. 20 baluts
9. 40 tablets
10. 20 stacks
11. 80 boats
12. 40 yemas
13. 100 runners
14. 80 mangoes
15. 20 bottles
16. 40 stacks
17. 20 parking slots
18. 90 stickers
19. 90 plates
20. 30 containers

ARAL Math Grade 5 Worksheet 26

Solving Multi-Step Problems Involving Division and Other Operations

1. 7 tambourines, 32 caps left
2. 16 hours
3. 2,980 feet
4. ₱144,336 collected; ₱136,336 left
5. 92 seats/row (5 extra); 56 seats left per row after reserving 36
6. 456,456 cuts/day; 13,693,680 cuts/month
7. ₱45,760
8. 1 more move
9. 5,789 meters/day
10. 112 more cards
11. ₱5,920 total fare; ₱1,080 change
12. ₱3,162 left
13. 303,600 miles
14. 20,463,300 passengers/year
15. 140 notebooks/classroom
16. ₱6,462,720
17. 216 buckets
18. 42 buses
19. ₱605
20. 10 bottles/family
21. 660 cookies left



22. 51 km/hour
23. 33 tables
24. ₱625,152
25. 206 bundles
26. ₱60/friend
27. 66 books/layer
28. 270 passengers left
29. 216 kg
30. ₱92/student

12. 15 books/shelf
13. ₱50,000
14. ₱1,990 profit
15. 146 books
16. ₱35,000
17. 465 pencils
18. 0 passengers
19. ₱360
20. 324 liters
21. ₱11,400
22. 100 km/hr
23. 144 juice boxes
24. 1,440 kg
25. 63 cars/level (15 left over)
26. ₱792.50
27. 360 kg/basket
28. 336 passengers
29. 101 sketchbooks (₱48 left)
30. 114 cans

ARAL Math Grade 5 Worksheet 27

Solving Multi-Step Problems Involving Division and Other Operations

1. ₱36,000
2. ₱1,780
3. 858, 8 eggs left over
4. 150 boxes, ₱6,750
5. 7 buses needed; 88 empty seats (with 1 extra bus)
6. ₱1,539,000 sales; ₱989,000 remaining profit
7. ₱92,500 profit
8. 442
9. ₱80
10. 106 full bags (10 apples left); ₱12,720 earned
11. ₱10,400 left

ARAL Math Grade 5 Worksheet 28

Order of Operations

1. 555
2. 69,801
3. 98,848,305
4. 655,105





5. 13
6. 15,145,790
7. 3,612,330
8. 891
9. 55,625
10. 14,718
11. 100,264
12. 9,772
13. 59,225
14. 5,304
15. 77,019
16. 89,687
17. 4,462,872
18. 1,661,885
19. 3,803,194
20. 2,173,104
21. 1,721,982
22. 1,419,993
23. 19,975
24. 2,300,248
25. 931,784
26. 1,380,189
27. 26,241
28. 62,541
29. 84,786

30. 1,262,111
31. 3,405,312
32. 23,534,436

ARAL Math Grade 5 Worksheet 29

Order of Operations

1. 1,726,058
2. 1,281,453
3. 515,479
4. 2,489,109
5. 9,226,584
6. 6,962,504
7. 1,171,163
8. 580,307
9. 5,531,909
10. 4,256,682.50.
11. 262,422.50
12. 37,415
13. 2,800
14. 7,160,656
15. 3,752,455
16. 1,855,394
17. 4,455,982
18. 4,718,126





19. 41,239
20. 7,040
21. 1,122,954
22. 1,121,870.75
23. 1,989,149
24. 5,993,877
25. 2,229,940.50
26. 7,126,381
27. 805,994
28. 1,010,648
29. 1,188,456
30. 2,446,625
31. 32,984.50
32. 33,066,066

ARAL Math Grade 5 Worksheet 30

Kinds of Angles

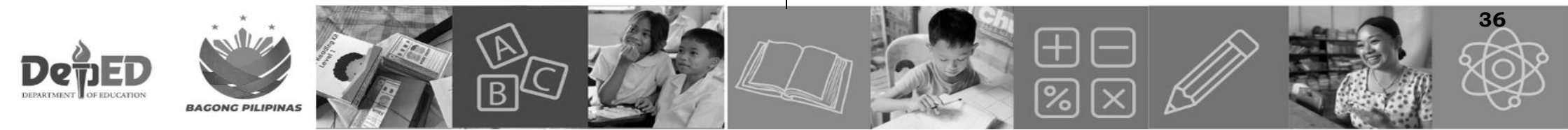
- 1-3. $\angle CHE$, $\angle EHC$, $\angle H$
- 4-7. $\angle ICK$, $\angle KCI$, $\angle C$, $\angle 1$
8. $\angle STP$, $\angle PST$, $\angle T$, $\angle 3$, $\angle PTH$, $\angle HTP$
- 9-11. $\angle SQR$, $\angle RQS$, $\angle Q$
- 12-15. $\angle ZXY$, $\angle YXZ$, $\angle X$, $\angle 6$
- 16-17. $\angle NPR$, $\angle RPN$, $\angle P$, $\angle 1$, $\angle RPQ$, $\angle QRP$, $\angle 2$

- 18-20. $\angle WUV$, $\angle VUW$, $\angle U$
- 21-24. $\angle ABC$, $\angle CBA$, $\angle B$, $\angle 9$
- 25-26. $\angle LMN$, $\angle NML$, $\angle LMO$, $\angle OML$, $\angle 3$, $\angle 4$, $\angle M$

ARAL Math Grade 5 Worksheet 31

Kinds of Angles

- 1-6. $\angle KRE$, $\angle KRN$, $\angle KRI$, $\angle ERN$, $\angle ERI$, $\angle NRI$
7. acute angle
8. right angle
9. acute angle
10. acute angle
11. obtuse angle
12. acute angle
13. right angle
14. obtuse angle
15. obtuse angle
16. acute angle
17. right angle
18. acute angle
- 19-21. $\angle FYU$, $\angle WYR$, $\angle WYM$
- 22-23. $\angle WYF$, $\angle MYU$, $\angle RYU$
- 24-27. $\angle ERF$, $\angle ERY$, $\angle FRC$, $\angle YRC$, $\angle CRM$, $\angle MRE$





ARAL Math Grade 5 Worksheet 32

Kinds of Angles

1-3.

$\angle QSB$, $\angle BST$, $\angle TSA$, $\angle ASP$, $\angle PSD$, $\angle DSV$, $\angle VSC$, $\angle CSQ$

4-5.

$\angle QSA$, $\angle BSP$, $\angle TSD$, $\angle ASV$, $\angle PSC$, $\angle DSQ$, $\angle VSB$, $\angle CST$

6-9.

$\angle QST$, $\angle BSA$, $\angle TSP$, $\angle ASD$, $\angle PSV$, $\angle DSC$, $\angle VSQ$, $\angle CSB$

10-12.

$\angle QSA$, $\angle QSB$, $\angle TSP$, $\angle PSD$, $\angle DSV$, $\angle VSB$

13-14.

$\angle QST$, $\angle QSD$, $\angle ASP$, $\angle ASV$, $\angle TSV$, $\angle PSB$

15-18.

$\angle QSV$, $\angle AST$, $\angle ASB$, $\angle TSD$, $\angle PSV$, $\angle DSB$

19-21.

$\angle QAB$, $\angle PAM$, $\angle PAR$

22-23.

$\angle BAP$, $\angle MAQ$, $\angle RAQ$

24-27.

$\angle ERA$, $\angle ERB$, $\angle ARD$, $\angle BRD$, $\angle DRM$, $\angle MRE$

28-30.

$\angle LTN$, $\angle KTS$, $\angle KTG$

31-32.

$\angle NTK$, $\angle GTL$, $\angle STL$

33-36.

$\angle HSN$, $\angle HST$, $\angle TSJ$, $\angle NSJ$, $\angle JSG$, $\angle GSH$



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