

$$2x + 5 = 17$$

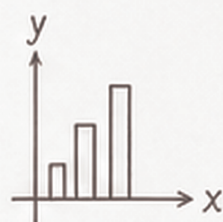
$$x = 6$$

$$A = \pi r^2$$

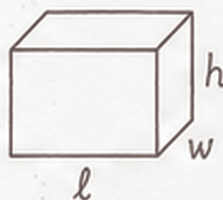


$$\frac{1}{2}x - 3 = 7$$

$$\frac{3}{4} + \frac{1}{6} = \frac{11}{12}$$



$$V = lwh$$



$$y = mx + b$$

SUMMER MATH WORKBOOK



GRADE 6

Essential Grade 6 Math Review and
Grade 7 Preview for a Successful School Year



Dr. Kam Berenji
Mathlibros.com

Summer Math Workbook Grade 6

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How to Use This Workbook

This workbook is designed for students who have completed Grade 6 or are preparing to enter Grade 7. Each chapter starts with a short review, then moves through worked examples, guided practice, independent practice, applications, reasoning, and challenge problems. Preview lessons are clearly labeled so Grade 7 preparation supports, rather than replaces, Grade 6 review.

Skills Included

Whole numbers, decimals, fractions, rational numbers, ratios, unit rates, percents, expressions, equations, inequalities, integers, coordinate plane, geometry, area, surface area, volume, measurement, statistics, probability, tables, graphs, word problems, cumulative review, and controlled Grade 7 preview.

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Expanded Concept Workshop

This expansion strengthens place value, decimal operations, estimation, order of operations, and multi-step applications. The goal is not more of the same; it is deeper practice with explanations, applications, and checks.

Strategy. Read the quantities first, decide what each number represents, choose a method, and check whether the answer is reasonable.

Additional Worked Examples

Example 1. Subtract $144.08 - 69.06$. Estimate first to decide if the answer is reasonable.

Solution. Round to estimate, then subtract with decimal points aligned. Answer: **75.02**.

Example 2. A garden row uses 17.7 feet of edging. How many feet are needed for 7 equal rows?

Solution. Multiply 17.7 by 7. Answer: **123.9**.

Example 3. 60.2 liters of water are shared equally among 5 containers. How many liters are in each container?

Solution. Divide the total liters by the number of containers. Answer: **12.04**.

15. **306.** First add inside parentheses: $7+27=34$. Then multiply by 9.
16. **21.7.** The hundredths digit decides whether the tenths digit stays or increases.
17. **85.** Add all entries in the table: total = 85.
18. **2246.** Use addition and subtraction from left to right after lining up place values.
19. **351.** Multiply: 27 times $13 = 351$.
20. **22.55.** Line up decimal points, add digits, and keep the decimal point aligned.
21. **80.34.** Line up decimal points and subtract by place value.
22. **79.5.** Multiply 15.9 by 5: 79.5 ounces.
23. **190.** First add inside parentheses: $8+30=38$. Then multiply by 5.
24. **71.3.** The hundredths digit decides whether the tenths digit stays or increases.
25. **49.** Add all entries in the table: total = 49.
26. **9206.** Use addition and subtraction from left to right after lining up place values.
27. **828.** Multiply: 23 times $36 = 828$.
28. **100.11.** Line up decimal points, add digits, and keep the decimal point aligned.
29. **65.95.** Line up decimal points and subtract by place value.
30. **36.4.** Multiply 9.1 by 4: 36.4 ounces.
31. **76.** First add inside parentheses: $3+16=19$. Then multiply by 4.
32. **85.4.** The hundredths digit decides whether the tenths digit stays or increases.
33. **106.** Add all entries in the table: total = 106.
34. **3502.** Use addition and subtraction from left to right after lining up place values.

12. $\frac{2}{5}$. Multiply numerators and denominators, then simplify.
13. $\frac{12}{7}$. Multiply by the reciprocal of the divisor, then simplify.
14. **51.88**. Multiply 83 by $\frac{5}{8}$ to get 51.875, then round to the nearest hundredth.
15. **0.05**. Divide numerator by denominator.
16. $\frac{39}{8}$. Multiply 4 by 8, add 7, keep denominator 8.
17. **3**. A whole number times a fraction means repeated groups of the fraction. *Use a labeled equation in your work.*
18. $\frac{11}{10}$. The denominators match, so add numerators and simplify.
19. $\frac{29}{35}$. Use a common denominator, add, and simplify.
20. $\frac{16}{99}$. Multiply numerators and denominators, then simplify.
21. $\frac{81}{70}$. Multiply by the reciprocal of the divisor, then simplify.
22. **6.5**. Multiply 52 by $1/8$.
23. **0.3**. Divide numerator by denominator.
24. $\frac{41}{6}$. Multiply 6 by 6, add 5, keep denominator 6.
25. **3**. A whole number times a fraction means repeated groups of the fraction. *Show one check for reasonableness.*
26. $\frac{3}{5}$. The denominators match, so add numerators and simplify.
27. $\frac{16}{15}$. Use a common denominator, add, and simplify.
28. $\frac{3}{14}$. Multiply numerators and denominators, then simplify.
29. $\frac{18}{11}$. Multiply by the reciprocal of the divisor, then simplify.
30. **18**. Multiply 36 by $3/6$.
31. **0.1**. Divide numerator by denominator.
32. $\frac{23}{6}$. Multiply 3 by 6, add 5, keep denominator 6.
33. **5**. A whole number times a fraction means repeated groups of the fraction.
34. $\frac{5}{4}$. The denominators match, so add numerators and simplify.