

Grade 6 Math Skills & Formula Worksheet

Ratios • Fractions • Expressions • Geometry • Statistics

Aligned to commonly used U.S. grade-level/Common Core mathematics strands; states and districts may sequence topics differently.

Formula & Example Reference

Topic	Formula / Rule	Worked Example
Ratio	$a:b = a/b$	Example: $2:3 = 2/3$.
Unit Rate	unit rate = quantity $\div$ units	Example: 180 miles $\div$ 3 hours = 60 mph.
Percent	percent = part/whole $\times$ 100	Example: $18/60 \times 100 = 30\%$.
Area of Rectangle	$A = l \times w$	Example: $8 \times 5 = 40$ square units.
Area of Triangle	$A = \frac{1}{2}bh$	Example: $\frac{1}{2} \times 10 \times 6 = 30$ square units.
Volume of Rectangular Prism	$V = lwh$	Example: $4 \times 3 \times 5 = 60$ cubic units.
Mean	mean = sum of values $\div$ number of values	Example: 4, 6, 8 $\rightarrow 18 \div 3 = 6$.

Practice Problems

1. Simplify the ratio 12:18.
2. A \$40 jacket is discounted by 25%. What is the discount and sale price?
3. Solve: $3/4 + 2/3$.
4. Evaluate $5x + 2$ when $x = 6$.
5. Find the area of a triangle with base 12 in and height 7 in.
6. Find the volume of a prism measuring 8 ft $\times$ 3 ft $\times$ 2 ft.
7. Find the mean of 12, 15, 9, 14, 10.
8. A recipe uses 3 cups of flour for 12 servings. How much flour per serving?

Show Your Work

Use the space on your printed copy or solve on a separate sheet. Check your calculations and label units where appropriate.

Answer Key

1. 2:3
2. \$10 discount; \$30 sale price
3. $17/12 = 1 \frac{5}{12}$
4. 32
5. 42 in²
6. 48 ft³
7. 12
8. $\frac{1}{4}$ cup

Parent/Teacher Extension

Ask the learner to create one original real-world problem using a formula from this worksheet, solve it, and explain why the formula applies.

Website download note

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