



Before You Learn

# Teacher Guide

Our resource has been created for ease of use by both **TEACHERS**, and **STUDENTS** alike.

## Introduction



Our resource offers ready-to-use worksheet activities for students in grades six to eight.



Math concepts outlined by the NCTM are presented in a way that encourages students to learn and review important concepts. Our resource can be used effectively for small group and independent work. This book's exercises vary in difficulty and content so as to provide teachers and students with a variety of teaching and learning opportunities. Included are challenging problem-solving tasks and drills that will push the boundaries of critical thought and demonstrate to students the importance of mathematical problems in Number & Operations, Algebra, Geometry, Measurement, and Data Analysis & Probability using real world situations. Visual models are included to assist visual learners. Teachers may also choose to use mathematics manipulatives along with the exercises included in this book to help address the needs of kinesthetic learners.

The NCTM Process Standards Assessment Rubric (pages 6-7) demonstrates which standards are met by the individual lessons. The **Reviews** (pages 25-27, 45-47, 65-67, 85-87, 105-107, 125-127, 145-147, 165-167, 185-187, 205-207) are divided by grade and can be used for a follow-up review or assessment at the completion of the unit.

## PICTURE CUES

Our resource contains three main types of pages, each with a different purpose and use. A **Picture Cue** at the top of each page shows, at a glance, what the page is for.



### Teacher Guide

- Information and tools for the teacher



### Student Activity Worksheets

- Reproducible worksheets and activities



### Easy Marking™ Answer Key

- Answers for activities



### Timed Drill Stopwatch

- Write the amount of time for students to complete the timed drill sheet in the stopwatch.

## How Is Our Resource Organized?

### STUDENT ACTIVITY WORKSHEETS

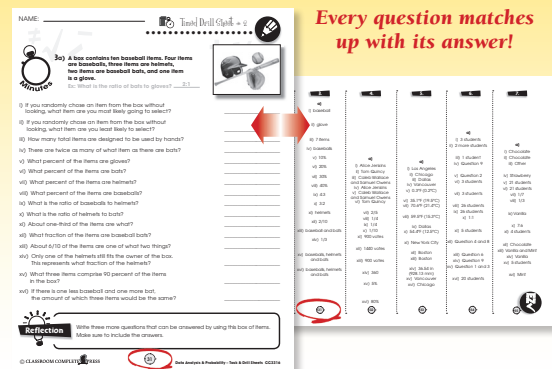
Reproducible **task sheets** and **drill sheets** make up the majority of our resource.

The **task sheets** contain challenging problem-solving tasks, many centered around 'real-world' ideas or problems, which push the boundaries of critical thought and demonstrate to students why mathematics is important and applicable in the real world. Many of the task sheet problems offer space for reflection, and opportunity for the appropriate use of technology, as encouraged by the NCTM's *Principles & Standards for School Mathematics*.

The **drill sheets** are provided to help students with their procedural proficiency skills, as emphasized by the NCTM's *Curriculum Focal Points*.

### EASY MARKING™ ANSWER KEY

Marking students's worksheets is fast and easy with this **Answer Key**. Answers are listed in columns – just line up the column with its corresponding worksheet, as shown, and see how every question matches up with its answer!



Every question matches up with its answer!

NAME: \_\_\_\_\_



# Review C

a) Draw the following types of lines.

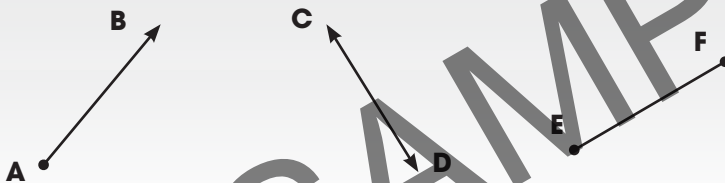
i) Perpendicular

ii) Parallel

iii) Intersecting

iv) Skew lines

b) Answer the questions using the lines below.

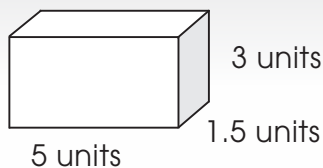


- i) Which line is a line segment? \_\_\_\_\_
- ii) Which line is a line? \_\_\_\_\_
- iii) Which line is a ray? \_\_\_\_\_

c) What is the formula for finding the volume of a rectangular prism or cube?

\_\_\_\_\_

d) Find the volume for the rectangular prism below.



\_\_\_\_\_ cubic units

NAME: \_\_\_\_\_



**10a) Solve the following.**

Ex:  $2 \times \frac{1}{4} \times \frac{2}{8} = \frac{2}{4} \times \frac{2}{8} = \frac{4}{32}$  or  $\frac{1}{8}$



i)  $3 \times \frac{1}{3} \times \frac{2}{5} =$

ii)  $5 \times \frac{1}{3} \times \frac{3}{12} =$

iii)  $(16.2 + 0.8) \times 2 =$

iv)  $18 \div 2.4 =$

v)  $23.23 + 171.34 + 2.9 + 0.002 =$

vi)  $(-12)(-8) + (-6) =$

**b) Write the place value of the underlined digit.**

i) 2781.021 \_\_\_\_\_

ii) 99 724.281 \_\_\_\_\_

**c) Show each of the following fractions as a percent.**

i)  $\frac{9}{45} =$

ii)  $\frac{20}{200} =$

iii)  $\frac{8}{25} =$

iv)  $\frac{16}{400} =$

**d) Divisor = 9, Dividend = 842, Remainder = 5. What is the quotient?** \_\_\_\_\_

**e) Divisor = 8, Dividend = 1251, Remainder = 3. What is the quotient?** \_\_\_\_\_



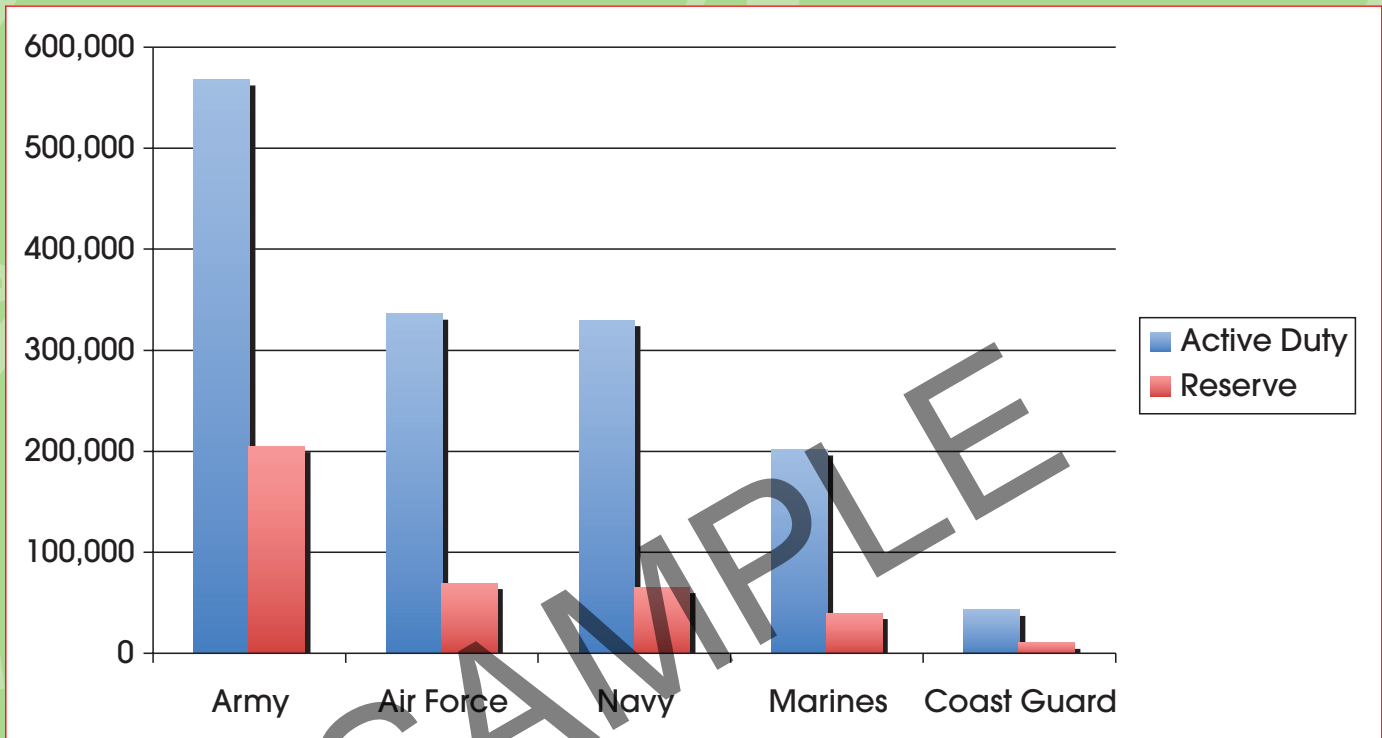
Paul was hired by the local golf course to retrieve balls in the evening from a few spots on the course. It is agreed that Paul will receive 0.25¢ per ball. During his first week, Paul earned \$180.00. Calculate the number of golf balls retrieved for each day in the chart below.

|                 | Mon.    | Tues.   | Wed.    | Thurs.  | Fri.    | TOTAL    |
|-----------------|---------|---------|---------|---------|---------|----------|
| Amt Earned      | \$32.00 | \$20.50 | \$60.75 | \$55.25 | \$11.50 | \$180.00 |
| Balls Retrieved |         |         |         |         |         |          |

# Ordering



The graph below shows the size of the U.S. military forces. Working with a partner or in a small group, use this graph to complete the activity.



a) List the armed forces active duty sizes from least to greatest.

\_\_\_\_\_

b) List the armed forces reserved sizes from least to greatest.

\_\_\_\_\_

c) List three comparisons that can be drawn between the armed forces.

\_\_\_\_\_

d) List four conclusions that can be drawn from this data.

\_\_\_\_\_