

Dear Educator,

We would like to take this opportunity to invite your school to participate in the contest season as members of the Atlantic-Pacific Mathematics League community. The Atlantic-Pacific Mathematics League was founded over 40 years ago and offers your school another fantastic opportunity to *challenge* your students and to encourage mathematical *discussion* in your classrooms.

The Atlantic-Pacific Mathematics contest is a series of **six contests** given monthly from November to April in three divisions, *elementary school* (grades 5 and 6), *middle school/junior high* (up to grade 9), and *high school* (up to grade 12). Each division involves **six challenging, non-calculator questions** to be completed within 30 minutes. The elementary school content areas include topics through Pre-Algebra. The middle school content areas include Pre-Algebra, Algebra, and Geometry. The high school content areas include Algebra, Geometry, Algebra II, and Trigonometry.

Atlantic-Pacific contests do not have to be limited to mathematics teams or clubs, but can offer a fantastic opportunity for *challenge* and *discussion* among your entire student body. Teams submit their top ten individual scores online as their team score and are compared to other teams in their region. *Awards* and *recognition* are given at the end of the contest season to the highest scoring teams in each region and individuals at the elementary, middle school, and high school divisions.

Please explore our website at [www.atpacmath.com](http://www.atpacmath.com) or contact us at [coordinator@atpacmath.com](mailto:coordinator@atpacmath.com) with further questions. We have enclosed information on contest dates, receiving contests, and submitting scores. In addition, we have enclosed a **registration form**. You may send your registration information to us at [coordinator@atpacmath.com](mailto:coordinator@atpacmath.com). The first contest is scheduled anytime during the month of November.

In conclusion, we know that you and the students of your school will find the Atlantic-Pacific contests both *challenging* and *rewarding* for your mathematics program. Please join us for a stimulating year as new members of the Atlantic-Pacific Mathematics League.

Sincerely,

The Atlantic-Pacific Math League Coordinators  
[coordinator@atpacmath.com](mailto:coordinator@atpacmath.com)

## Contest Dates and Team Score Submission

Contest #	Administer any day in	Submit Results by
1	November	November 30
2	December	December 31
3	January	January 31
4	February	February 28
5	March	March 31
6	April	April 30

Contests may be administered during any day of the listed month. Be sure to submit results by the last day of the month. The last contest must be administered and submitted by the end of April.

### Receiving Contests

**All contests and answer keys will be sent, in Adobe Acrobat (.pdf) format, via the sponsor's registered e-mail prior to November 1.** You may make as many copies as you need for each contest, but it is essential that there is no discussion about specific contest questions and that all contests and answer keys are secured prior to the contest date.

## Atlantic-Pacific Math League - Registration Form

To ensure prompt arrival of contests, complete all registration information below and email to [coordinator@atpacmath.com](mailto:coordinator@atpacmath.com). All contest notifications will be sent via e-mail, so be sure to include your current e-mail address and unblock [coordinator@atpacmath.com](mailto:coordinator@atpacmath.com) from your spam folder.

The first contest is scheduled in the month of November. Purchased contests and keys will be available for download at [www.atpacmath.com](http://www.atpacmath.com), prior to November, using your registered email.

You will receive email confirmation of registration once your registration form is processed.

### Registration Information

**Sponsor's Name:** \_\_\_\_\_

**Alternate Name:** \_\_\_\_\_

**School Name:** \_\_\_\_\_

**School Address:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Phone:** \_\_\_\_\_

(Contests sent to these e-mail addresses)

**Sponsor's E-mail:** \_\_\_\_\_

**Alternate(home/co-sponsor) E-mail:** \_\_\_\_\_

<u>Contest Level</u> (check all that apply):	<u>Cost</u>	<u>Total</u>
_____ Elementary School (Grade 5 and 6)	\$80 (US)	
_____ Middle School/Junior High (up to Grade 9)	\$80 (US)	
_____ Senior High (up to Grade 12)	\$80 (US)	
<b><u>Past Season Contests and Keys</u> (circle all that apply):</b>		
<b>High School:</b> (14/15) (13/14) (12/13) (11/12) (10/11) (09/10) (08/09) (07/08) (06/07)	\$10 per HS season	
<b>Middle/Jr:</b> (14/15) (13/14) (12/13) (11/12) (10/11) (09/10) (08/09) (07/08) (06/07)	\$10 per MS season	
<b>Elementary:</b> (14/15) (13/14) (12/13) (11/12) (10/11) (09/10) (08/09) (07/08)	\$10 per ES season	
<b>Grand Total:</b>		

Please make checks payable to **Atlantic-Pacific Math League** and mail to:  
 Atlantic-Pacific Math League  
 P.O. Box 523  
 Glenside, PA 19038 USA

# ATLANTIC-PACIFIC MATHEMATICS LEAGUE

## Elementary School League No Calculators Permitted

Name \_\_\_\_\_

Grade Level \_\_\_\_\_

Score \_\_\_\_\_

Time 30 Minutes

Math Teacher \_\_\_\_\_

### Answer Column

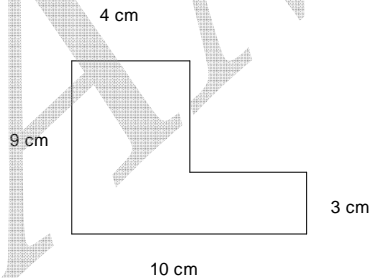
1.1 Subtract  $8\frac{1}{3}$  from  $10\frac{1}{6}$ . Express your answer as a mixed number in simplest form.

1.2 Determine the greatest common factor of 24 and 60.

1.3 Write the number 126,000,000 in scientific notation.

1.4 The length of a mini-flashlight is 13 cm. What is this length in millimeters?

1.5 What is the perimeter of the figure shown? All angles are right angles.



1.6 Which figure has an odd number of vertices?

- A. Square      B. Hexagon      C. Pentagon      D. Octagon

**ATLANTIC-PACIFIC** MATHEMATICS LEAGUE  
Middle School/Junior High School League  
No Calculators Permitted

Name \_\_\_\_\_

Grade Level \_\_\_\_\_

Score \_\_\_\_\_

Time 30 Minutes

Math Teacher \_\_\_\_\_

**Answer Column**

1.1	The sum of two numbers is 10; their product is 20. Find the sum of their reciprocals.	
1.2	16% of 35 is 4% of what number?	
1.3	The perimeter of a square is 64. What is the area of this square?	
1.4	Solve for $B$ if $\frac{1}{A} + \frac{1}{B} = \frac{1}{C}$ .	
1.5	Factor as far as possible in the domain of integers. $A^2B + AB^2 + A^2 - B^2 - (A + B)$	
1.6	If $\frac{2}{3}$ of the faculty of Madison High School are women and $\frac{1}{2}$ of the male members are married while 5 others are bachelors, how many teachers are on the faculty of this school?	

**ATLANTIC-PACIFIC** MATHEMATICS LEAGUE  
**High School League**  
**No Calculators Permitted**

Name \_\_\_\_\_

Grade Level \_\_\_\_\_

Score \_\_\_\_\_

Time 30 Minutes

Math Teacher \_\_\_\_\_

**Answer Column**

1.1	From a group of males and females, 15 females leave. There are now twice as many males as females. Later 45 males leave. Now there are 5 females for each male. What was the original number of females?	
1.2	Let $N$ be the number of integers between 35,000 and 45,000 that are squares of integers. Find $N$ .	
1.3	If $S = \frac{W_1 - W_2}{W_3 - W_2}$ , solve for $W_2$ .	
1.4	Change $(10110)_2$ to a base ten numeral.	
1.5	The area of an isosceles right triangle is 8. Find its perimeter.	
1.6	Simplify $36^{\sqrt{5}} \div 6^{\sqrt{20}}$ .	