

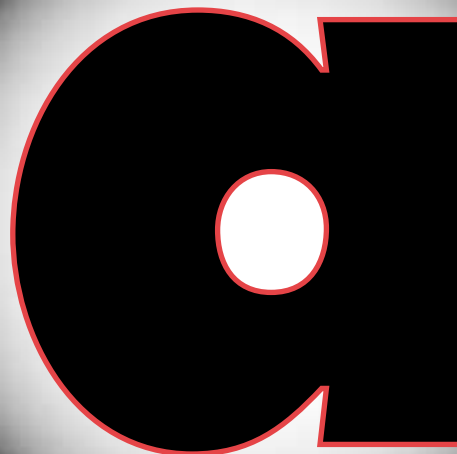
# Placement Test A

ADDITION & SUBTRACTION

## Developmental Mathematics

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BASIC FACTS CONCEPTS & BASIC FACTS



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## PLACEMENT TEST A

### How to Use the Placement Test

The Placement Test pamphlet is composed of three parts; the student's Placement Test, the educator's Placement Guidelines, and the Placement Key. The educator's Placement Guidelines and the Placement Key are contained on the inside of the front cover and the inside of the back cover of the pamphlet, respectively. The student's Placement Test is enclosed as the eight-page contents of the pamphlet. Please remove the cover of the Placement Test pamphlet for the educator, so the student does not have access to the Placement Key. Give the eight-page Placement Test to the student for completion, and use the following Placement Guidelines and Placement Key to check his or her work. It's as easy as 1, 2, 3!

### Placement Guidelines

Placement Test A covers the theoretical concepts, basic facts, and practical skills in *Developmental Mathematics* Levels 2, 3, and 4. The specific Placement Test questions that address these levels are as follows:

- Level 2**   **Ones:** Addition Concepts and Basic Facts  
Questions 1–2
- Level 3**   **Ones:** Subtraction Concepts and Basic Facts  
Questions 3–8
- Level 4**   **Tens:** Concepts, Addition and Subtraction Facts  
Questions 9–12

The student should attempt to complete the entire Placement Test until he or she cannot proceed without aid. After the student completes the questions, the educator should analyze the responses that address a specific level, item by item, and evaluate the quality of the student's performance. Typical results show a decrease in the quality of the student's performance in the more complicated concepts tested toward the end of the Placement Test. If *most* of the answers given are correct, then the student has successfully passed the current level of the Placement Test. However, if *most* of the answers are incorrect or if the student is hesitant in giving his or her answers, then the student is in need of practice, and he or she should begin the *Developmental Mathematics* curriculum with the current level. Good luck!

### Mathematics Placement and Scoring System (MPASS)

Mathematics Programs Associates (MPA) has developed an automated computerized version of the *Developmental Mathematics* placement and scoring framework, available on disk and on the World Wide Web. Visit our Internet distributor at [www.greatpyramid.com](http://www.greatpyramid.com) and find the placement (MPASS) mechanism within the mathematics section of the product module. You can also learn more about MPA and *Developmental Mathematics*.

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# PLACEMENT TEST A

## Addition and Subtraction: Concepts and Basic Facts

Name \_\_\_\_\_ Date \_\_\_\_\_

1.a. How many in all?

5 and 1 more \_\_\_\_\_

3 and 1 more \_\_\_\_\_

4 and 1 more \_\_\_\_\_

8 and 1 more \_\_\_\_\_

1 and 1 more \_\_\_\_\_

6 and 1 more \_\_\_\_\_

7 and 1 more \_\_\_\_\_

2 and 1 more \_\_\_\_\_

b. How many in all?

3 and 2 more \_\_\_\_\_

6 and 2 more \_\_\_\_\_

2 and 2 more \_\_\_\_\_

5 and 2 more \_\_\_\_\_

7 and 2 more \_\_\_\_\_

1 and 2 more \_\_\_\_\_

c. How many in all?

2 and 3 more \_\_\_\_\_

3 and 4 more \_\_\_\_\_

4 and 3 more \_\_\_\_\_

5 and 4 more \_\_\_\_\_

1 and 7 more \_\_\_\_\_

3 and 6 more \_\_\_\_\_

1 and 8 more \_\_\_\_\_

3 and 5 more \_\_\_\_\_

2 and 7 more \_\_\_\_\_

1 and 4 more \_\_\_\_\_

2 and 5 more \_\_\_\_\_

3 and 3 more \_\_\_\_\_

1 and 6 more \_\_\_\_\_

2 and 6 more \_\_\_\_\_

4 and 4 more \_\_\_\_\_

2 and 4 more \_\_\_\_\_

1 and 6 more \_\_\_\_\_

1 and 3 more \_\_\_\_\_

2. Write the answer.

$1 + 6 = \underline{\quad}$

$6 + 1 = \underline{\quad}$

$3 + 4 = \underline{\quad}$

$5 + 2 = \underline{\quad}$

$3 + 6 = \underline{\quad}$

$6 + 2 = \underline{\quad}$

$2 + 1 = \underline{\quad}$

$4 + 2 = \underline{\quad}$

$2 + 5 = \underline{\quad}$

$5 + 4 = \underline{\quad}$

$2 + 7 = \underline{\quad}$

$1 + 1 = \underline{\quad}$

$3 + 5 = \underline{\quad}$

$1 + 8 = \underline{\quad}$

$1 + 5 = \underline{\quad}$

$4 + 4 = \underline{\quad}$

$1 + 7 = \underline{\quad}$

$3 + 3 = \underline{\quad}$

$3 + 1 = \underline{\quad}$

$8 + 1 = \underline{\quad}$

$4 + 5 = \underline{\quad}$

$5 + 1 = \underline{\quad}$

$2 + 3 = \underline{\quad}$

$5 + 3 = \underline{\quad}$

$1 + 3 = \underline{\quad}$

$2 + 2 = \underline{\quad}$

$6 + 3 = \underline{\quad}$

$2 + 4 = \underline{\quad}$

$7 + 1 = \underline{\quad}$

$3 + 2 = \underline{\quad}$

$1 + 2 = \underline{\quad}$

$1 + 4 = \underline{\quad}$

$7 + 2 = \underline{\quad}$

$4 + 1 = \underline{\quad}$

$4 + 3 = \underline{\quad}$

$2 + 6 = \underline{\quad}$

3. Write the answer.

$9 - 8 = \underline{\quad}$

$6 - 3 = \underline{\quad}$

$8 - 2 = \underline{\quad}$

$4 - 1 = \underline{\quad}$

$9 - 2 = \underline{\quad}$

$6 - 2 = \underline{\quad}$

$7 - 5 = \underline{\quad}$

$4 - 3 = \underline{\quad}$

$9 - 5 = \underline{\quad}$

$9 - 7 = \underline{\quad}$

$3 - 1 = \underline{\quad}$

$8 - 1 = \underline{\quad}$

$5 - 2 = \underline{\quad}$

$7 - 6 = \underline{\quad}$

$7 - 2 = \underline{\quad}$

$9 - 6 = \underline{\quad}$

$9 - 3 = \underline{\quad}$

$6 - 5 = \underline{\quad}$

$2 - 1 = \underline{\quad}$

$8 - 6 = \underline{\quad}$

$9 - 1 = \underline{\quad}$

$8 - 5 = \underline{\quad}$

$8 - 3 = \underline{\quad}$

$7 - 3 = \underline{\quad}$

$5 - 4 = \underline{\quad}$

$6 - 4 = \underline{\quad}$

$8 - 7 = \underline{\quad}$

$9 - 4 = \underline{\quad}$

$5 - 3 = \underline{\quad}$

$3 - 2 = \underline{\quad}$

$7 - 4 = \underline{\quad}$

$7 - 1 = \underline{\quad}$

$5 - 1 = \underline{\quad}$

$6 - 1 = \underline{\quad}$

$4 - 2 = \underline{\quad}$

$8 - 4 = \underline{\quad}$

4. Write the answer.

$6 - 6 = \underline{\quad}$

$7 - 7 = \underline{\quad}$

$8 - 8 = \underline{\quad}$

$6 + 0 = \underline{\quad}$

$7 + 0 = \underline{\quad}$

$8 + 0 = \underline{\quad}$

$0 + 6 = \underline{\quad}$

$0 + 7 = \underline{\quad}$

$0 + 8 = \underline{\quad}$

$6 - 0 = \underline{\quad}$

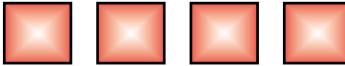
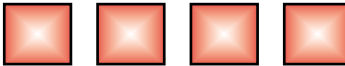
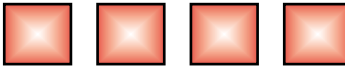
$7 - 0 = \underline{\quad}$

$8 - 0 = \underline{\quad}$

5. What is the number?

- a. What number is 3 more than 0? \_\_\_\_\_
- b. What number is 0 more than 3? \_\_\_\_\_
- c. What number is 5 less than 5? \_\_\_\_\_
- d. What number is 3 less than 4? \_\_\_\_\_
- e. What number is 0 less than 0? \_\_\_\_\_

6. Fill in the boxes.

- a. Start with 8, take away 7, add 3, and take away 4. 
- b. Start with 9, take away 5, add 0, and take away 2. 
- c. Start with 2, take away 2, add 3, and take away 2. 

7. Bob has:



Tom has:



- a. Who has more money?  
\_\_\_\_\_
- How many cents more?  
\_\_\_\_\_

- b. Who has less money?  
\_\_\_\_\_
- How many cents less?  
\_\_\_\_\_

8. Write a number sentence.

a. You had:



Now you have:



How many cents

did you spend? \_\_\_\_\_

b. You had:



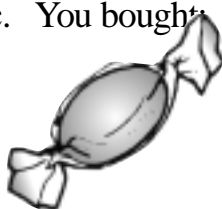
You bought:



How many cents

do you have now? \_\_\_\_\_

c. You bought:



4¢

Now you have:



How many cents

did you have? \_\_\_\_\_

d. 6 boys were in the room.

4 boys left the room.

How many boys are

in the room now? \_\_\_\_\_

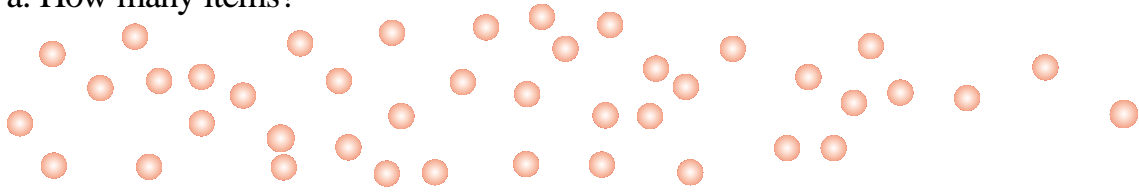
e. 5 balls were in the box.

You put 4 more balls in the box.

How many balls are

in the box now? \_\_\_\_\_

9. a. How many items?



b. Circle thirty items.



c. Write the numbers.

ten \_\_\_\_\_

seventy \_\_\_\_\_

ninety \_\_\_\_\_

fifty \_\_\_\_\_

twenty \_\_\_\_\_

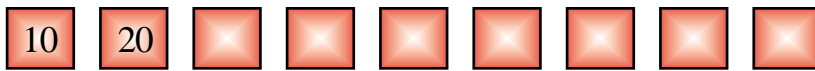
forty \_\_\_\_\_

thirty \_\_\_\_\_

sixty \_\_\_\_\_

eighty \_\_\_\_\_

d. Count up:



Count down:



e. How many cents are in 1 dime? \_\_\_\_\_

How many cents are in 4 dimes? \_\_\_\_\_

How many dimes are in 50 cents? \_\_\_\_\_



10. Write the answer.

$40 + 10 = \underline{\quad}$

$20 + 20 = \underline{\quad}$

$10 + 30 = \underline{\quad}$

$30 + 50 = \underline{\quad}$

$50 + 20 = \underline{\quad}$

$50 + 40 = \underline{\quad}$

$60 + 20 = \underline{\quad}$

$20 + 10 = \underline{\quad}$

$10 + 70 = \underline{\quad}$

$20 + 70 = \underline{\quad}$

$10 + 50 = \underline{\quad}$

$80 + 10 = \underline{\quad}$

$10 + 20 = \underline{\quad}$

$50 + 30 = \underline{\quad}$

$30 + 40 = \underline{\quad}$

$60 + 10 = \underline{\quad}$

$20 + 40 = \underline{\quad}$

$40 + 50 = \underline{\quad}$

11. Write the answer.

$80 - 50 = \underline{\quad}$

$50 - 40 = \underline{\quad}$

$40 - 20 = \underline{\quad}$

$50 - 30 = \underline{\quad}$

$80 - 60 = \underline{\quad}$

$70 - 50 = \underline{\quad}$

$90 - 80 = \underline{\quad}$

$70 - 30 = \underline{\quad}$

$80 - 10 = \underline{\quad}$

$90 - 40 = \underline{\quad}$

$60 - 10 = \underline{\quad}$

$50 - 50 = \underline{\quad}$

$50 - 10 = \underline{\quad}$

$90 - 70 = \underline{\quad}$

$50 - 20 = \underline{\quad}$

$90 - 90 = \underline{\quad}$

$60 - 40 = \underline{\quad}$

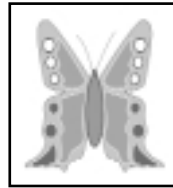
$30 - 30 = \underline{\quad}$

$70 - 40 = \underline{\quad}$

$80 - 80 = \underline{\quad}$

$80 - 30 = \underline{\quad}$

12. a. You have 5 dimes and 30 cents.  
In all, how many cents do you have?  
You want to buy this picture.  
How many cents more do you need?



90¢

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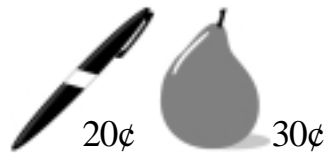
b. Ann had 40 cards.  
Frank had 50 cards.  
Frank gave 20 cards to Ann.  
How many cards does Ann have now?  
How many cards does Frank have now?

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c. You had:

You bought:



How many cents do you have now?

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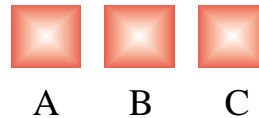
d. A, B, and C are three numbers.

A is 40.

B is 20 more than A.

C is 10 less than B.

What numbers are B and C?



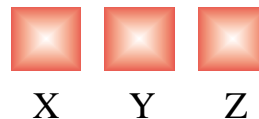
e. X, Y, and Z are three numbers.

X is 30.

Y is 30 less than X.

Z is 40 more than X.

What numbers are Y and Z?



## PLACEMENT KEY A

Although some of the answers may seem obvious, we have included the answers to all of the Placement Test questions within the following table.

Level 2		Level 3		Level 4	
Question	Answer	Question	Answer	Question	Answer
1a	6, 4	3	1, 3, 6	9a	42
	5, 9		3, 7, 4	9b	
	2, 7		2, 1, 4	9c	10, 70, 90
	8, 3		2, 2, 7		50, 20, 40
1b	5, 8		3, 1, 5		30, 60, 80
	4, 7		3, 6, 1	9d	
	9, 3		1, 2, 8	9e	10
1c	5, 7		3, 5, 4		40
	7, 9		1, 2, 1		5
	8, 9		5, 2, 1	10	50, 40, 40
	9, 8		3, 6, 4		80, 70, 90
	9, 5		5, 2, 4		80, 30, 80
	7, 6	4a	0, 0, 0		90, 60, 90
	7, 8	4b	6, 7, 8		30, 80, 70
	8, 6	4c	6, 7, 8		70, 60, 90
	7, 4	4d	6, 7, 8	11	30, 10, 20
2	7, 7, 7	5a	3		20, 20, 20
	7, 9, 8	5b	3		10, 40, 70
	3, 6, 7	5c	0		50, 50, 0
	9, 9, 2	5d	1		40, 20, 30
	8, 9, 6	5e	0		0, 20, 0
	8, 8, 6	6a	8, 1, 4, 0		30, 0, 50
	4, 9, 9	6b	9, 4, 4, 2	12a	80, 10
	6, 5, 8	6c	2, 0, 3, 1	12b	60, 30
	4, 4, 9	7a	Bob, 2	12c	30
	6, 8, 5	7b	Tom, 2	12d	60, 50
	3, 5, 9	8a	$6 - 2 = 4$	12e	0, 40
	5, 7, 8	8b	$5 - 3 = 2$		
		8c	$4 + 5 = 9$		
		8d	$6 - 4 = 2$		
		8e	$5 + 4 = 9$		

**Mathematics Programs Associates (MPA),**

a Long Island-based family enterprise providing educational products and consulting services, exists today primarily due to the vision and determination of its founder, Dr. L. George Saad.

During the early 1950s, Dr. Saad taught mathematics education at the University of Ain-shams in Cairo, Egypt. In 1954, with an innovative idea for self-teaching, he enrolled as a doctoral candidate at the University of Birmingham in England. During the following three years, Dr. Saad devoted his research to the elementary and secondary students' understanding of basic mathematics, and he developed the methodology for a self-teaching mathematics program. In 1957, Dr. Saad received the Ph.D. in mathematics education. He then returned to Cairo and began the development of a government-sponsored mathematics curriculum for use throughout the country's elementary school system. In 1959, samples of Dr. Saad's materials were tested in the Cairo schools and, a few years later, his curriculum was being used throughout the country and in other Middle Eastern nations. Due to his popularity in the Middle East, in 1969, Dr. Saad was invited to the United States as a visiting professor at the State University of New York, and in the same year, accepted a professorship at Long Island University. In 1970, with an inspiration to repeat his success, Dr. Saad immigrated his family to the United States and began working on the rudiments of a self-teaching mathematics workbook series. In 1974, he incorporated MPA in New York to design, develop and distribute his work. Today, educators and students in the United States, and many other nations throughout the world, are benefiting from Dr. Saad's lifelong achievement,

**Developmental Mathematics**

***A Self-Teaching Program***



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