NAME: _____ **DATE:** _____ **EXAMINER:** _____

DIRECTIONS: Use the equation to find the missing values in the table. Then graph the equation and write the slope.

1. a. $y = 2x + 1$ slope _____

x	$^{-}1$	0	1	2
y				

b. $y = {}^{-}3x + 2$ slope _____

x	$^{-}1$	0	1	2
y				

c. $y = x + 3$ slope _____

x	$^{-}1$	0	1	2
y				

DIRECTIONS: Solve each system of equations graphically, and write the solution as an ordered pair.

2. a. $\begin{cases} y = \frac{1}{4}x \\ y = {}^{-}4x \end{cases}$

solution: _____

b. $\begin{cases} y = {}^{-}2x + 4 \\ y = x + 1 \end{cases}$

solution: _____

c. $\begin{cases} y = x - 3 \\ y = {}^{-}3x + 5 \end{cases}$

solution: _____

M-9 Eighth-Grade Placement Test

Overview

This assessment focuses on the student's ability to solve eighth-grade mathematics problems.

SKILL

Solves eighth-grade mathematics problems

ASSESSMENT METHOD

Individual or Group Written Response

MATERIALS

- Copy of pages S-391 and S-392
- A pencil
- Scratch paper

SCORING INFORMATION

Record results on page 39 of the student's *Record Book*. Give credit for each correct response. Accuracy of at least 80% (9/11) indicates mastery of solving eighth-grade mathematics problems.

OBJECTIVE FOR WRITING IEPs

By ____(date)____, when given eighth-grade mathematics problems, __(student's name)__ will solve the problems with at least 80% accuracy.

Directions for Assessment: Written Response

Give the student a copy of pages S-391 and S-392, a pencil, and scratch paper. Point out the DIRECTIONS to the student. If necessary, give help understanding the DIRECTIONS.

Say: **Solve as many problems as you can. Keep working until you are finished or I tell you to stop.**

SKILL ANALYSIS AND ANSWERS FOR PAGE S-391

1. Represents linear equations

a. slope 2

x	-1	0	1	2
y	-1	1	3	5

b. slope -3

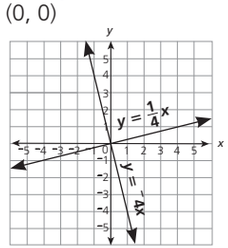
x	-1	0	1	2
y	5	2	-1	-4

c. slope 1

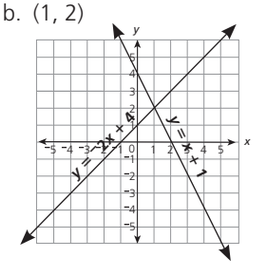
x	-1	0	1	2
y	2	3	4	5

2. Solves systems of equations

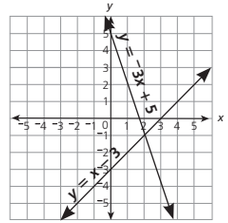
a. (0, 0)



b. (1, 2)



c. (2, −1)



NAME: _____ **DATE:** _____ **EXAMINER:** _____

DIRECTIONS: Use the triangle to solve each problem.

3.

a. Explain why triangle ADE is similar to triangle ABC.

b. List two pairs of congruent angles.

c. What is the length of $\overline{AC}$ in units?

DIRECTIONS: Two stores sell T-shirts. The lists show the prices of each style of shirts. Use the data sets to solve each problem.

4. Prices of T-shirts

Store A: $10.50, $12.00, $12.50, $8.00, $9.00, $15.00, $10.00, $12.00, $8.50, $10.00, $14.00, $10.00, $10.50, $13.00, $12.50

Store B: $12.00, $13.00, $10.00, $10.50, $12.00, $10.00, $10.50, $15.00, $12.00, $15.00

a. Find the mean, median, mode, and range for each data set. Round to the nearest cent when necessary.

b. Make a box-and-whisker plot for each set of data.

SKILL ANALYSIS AND ANSWERS FOR PAGE S-392

3. Solves problems about triangles

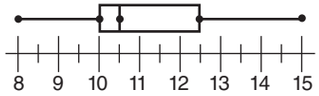
a. Sample answer: The bases of the triangles are parallel lines that are cut by transversals, so the corresponding angles are congruent. The base and the height of triangle *ABC* are each double the base and the height of triangle *ADE*.

b. $\angle ADE \cong \angle ABC$; $\angle AED \cong \angle ACB$; $\angle CAB \cong \angle EAD$

c. $AC = 10$ units

4. Analyzes and compares data

a. Store A: mean—$11.17; median—$10.50; mode—$10.00; range—$7.00



b. Store B: mean, median, and mode—$12.00; range—$5.00