Friday June 8th, 2012

Download Handout #1 From Website
9.2LastNameEQAOMiniMock2.pdf

Learning Goals:

Today we will attempt a few problems from the 2007 Spring EQAO Test and share our solutions via Apple TV

Mind Buster:
Warm Up

Unit 9 - EQAO & Exam Prep
Sec. 9.2 - EQAO Mini-Mock Test #2

GET READY...
Education Quality and Accountability Office
EQAO
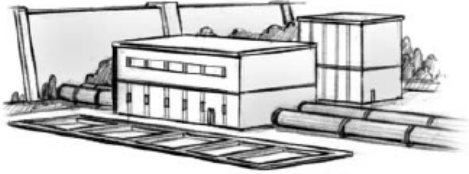**IN 7 DAYS**

Constructive Criticism:
How Can We Improve?

Spring 2007 #6

1 The charges on a monthly water bill are $0.86 per m³ of water used plus a service charge of $4.49.

> Let C = total charge, in dollars, and
> w = total amount of water used, in m³.

Which equation represents the relationship between C and w?

F $C = 4.49 \times 0.86w$

G $C = 4.49w + 0.86$

H $C = 4.49 + 0.86w$

J $C = (4.49 + 0.86)w$

Spring 2007 #7

2 Alex's Rose Shop makes up bouquets and charges for the vase, plus a cost per rose.

• The shop charges $32.85 for a bouquet of 12 roses.
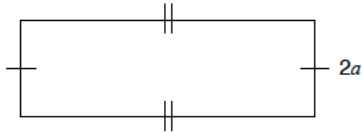
• The shop charges $50.85 for a bouquet of 20 roses.

What does Alex's Rose Shop charge for a vase?

A $18.00

B $8.00

C $5.85

D $2.74

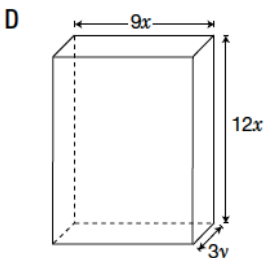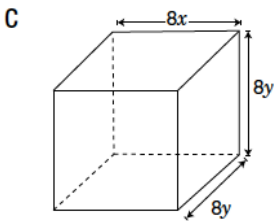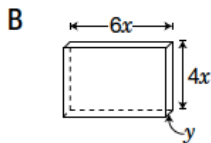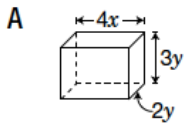**3** A rectangular field has a **perimeter** of $(10a - 6)$ metres and a width of $2a$ metres.

Which expression represents the **length** of this field?

A $8a - 6$

B $12a - 6$

C $3a - 3$

D $3a^2 - 3$

4 Which of the following fish tanks would contain an amount of water represented by the expression $V = 24x^2y$ when completely full?

A

B

C

D

5 Theo plans to purchase a new long-distance telephone plan called the Silver Plan. Under this plan, the telephone company determines the monthly cost using the following charges.

- The base fee is $30/month, which includes up to 150 minutes of long distance.

- The cost for all minutes over 150 each month is $0.15/minute.

With the Silver Plan, how much will it cost Theo to talk long-distance for 230 minutes over one month?

F $12.00

G $34.50

H $42.00

J $64.50

6 Temira needs to rent a car. She considers the following price equations, where C is the total cost, in dollars, and n is the number of days.
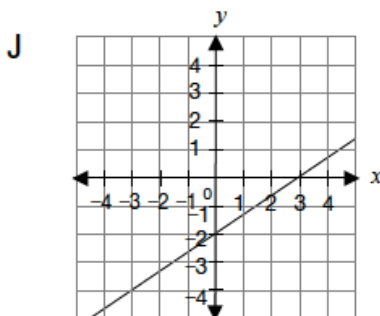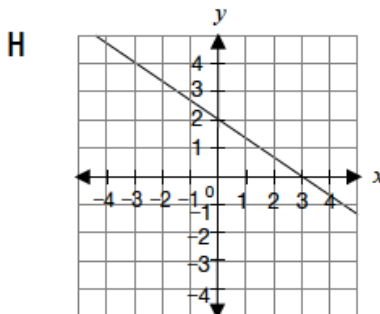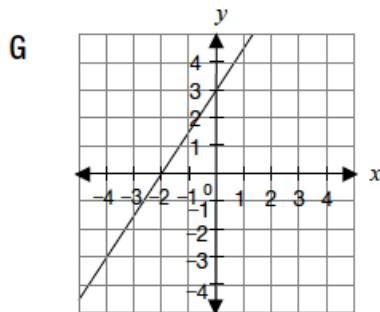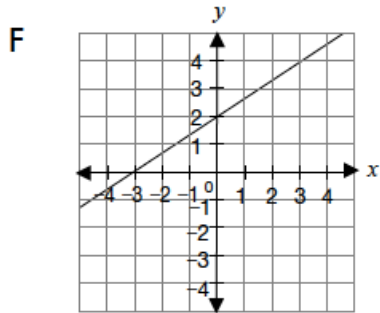
Company	Equation
Rentway	$C = 20n + 100$
Cheapie's Rentals	$C = 25n + 50$
Cars Cars Cars	$C = 50n$
Drive Away	$C = 15n + 125$

Which company should she choose if she is planning to rent the car for at least 10 days?

F   Rentway

G   Cheapie's Rentals

H   Cars Cars Cars

J   Drive Away

7 Which **graph** represents the relation $y = \frac{2}{3}x + 2$?

F
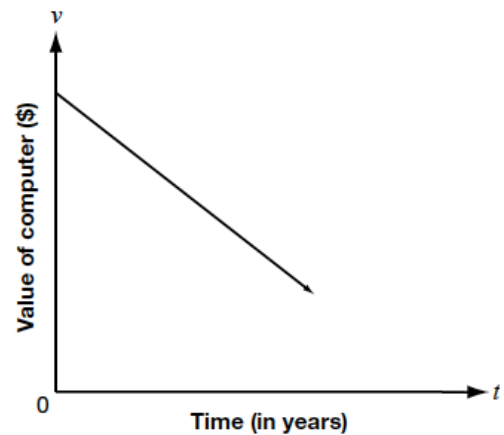

G

H

J

8 A computer decreases in value over time. The relationship between the value of the computer, v, in dollars after t years is written as the equation

$$v = -300t + 2100.$$

A line representing the relationship is graphed.

What does the v-intercept of the line represent?

A   The decrease in value per year

B   The initial value of the computer

C   The number of years until the value is $0
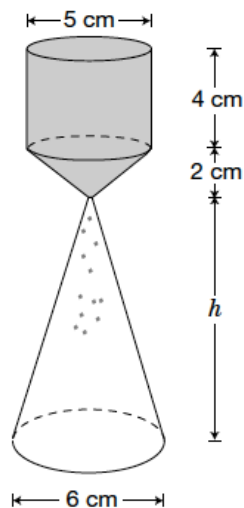
D   The number of years the computer will work

9 Salazar is asked to graph the linear relation represented by $2x - 3y + 6 = 0$. What is the y-intercept of this line?

A −6

B −2

C 2

D 6

10 Sand is being poured from one container to another, as shown below. The sand flows from the shaded part to the unshaded cone.

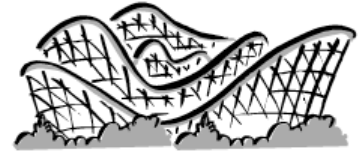The shaded part starts full of sand. The sand empties into the unshaded cone and fills it to the top. What is the height of the unshaded cone?

F 6.0 cm
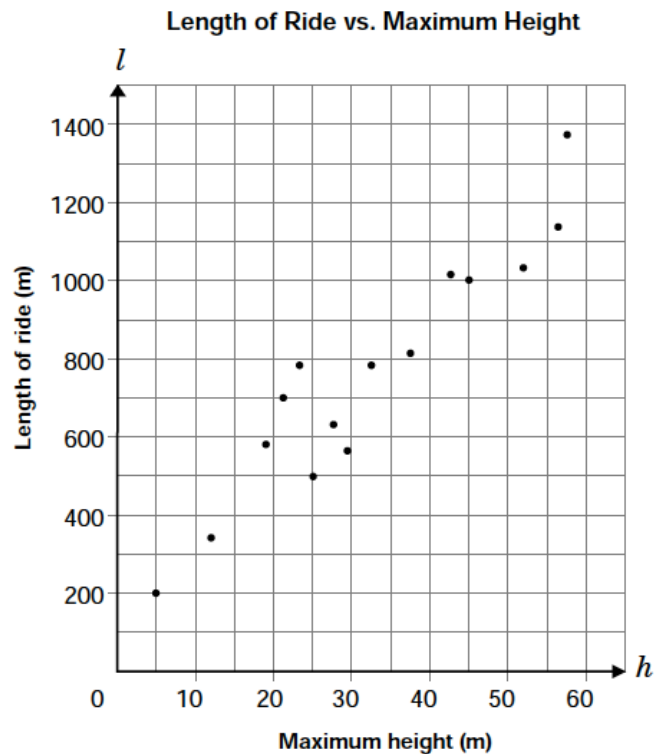
G 8.3 cm

H 9.7 cm

J 12.5 cm

1. Thrill Rides

Susanna travels to different amusement parks to ride 15 roller coasters and collect data about each ride.

She constructs a scatter plot to show the relationship between the **total length** of the ride, l, in metres, and the **maximum height** of its peaks, h, in metres.

a)   Draw a **line of best fit** to represent the data.

b)   Determine an **equation** for your line of best fit. Justify your answer.

Length of Ride vs. Maximum Height

l

1400

1200

1000

800

600

400

200

Length of ride (m)

0   10   20   30   40   50   60 h

Maximum height (m)

c)   Susanna rides another roller coaster. The **length** of the ride on this roller coaster is **500 m.**

Determine its **maximum height,** using your results from part **a)** or **b).** Justify your answer.

SOLUTION

Student Answer Sheet

1. ⓐ ⓑ ● ⓓ
2. ⓐ ⓑ ● ⓓ
3. ⓐ ⓑ ● ⓓ
4. ⓐ ● ⓒ ⓓ
5. ⓐ ⓑ ● ⓓ
6. ⓐ ⓑ ⓒ ●

7. ● ⓑ ⓒ ⓓ
8. ⓐ ● ⓒ ⓓ
9. ⓐ ⓑ ● ⓓ
10. ⓐ ⓑ ● ⓓ

Short Answer Problem Academic Day 2:

a) Draw a **line of best fit** to represent the data.

b) Determine an **equation** for your line of best fit.
Justify your answer.

$$m = \frac{y_2 - y_1}{x_2 - x_1} \qquad = 20$$

$$= \frac{1000 - 200}{45 - 5} \qquad y = 20x + b$$

$$y = 20x + 100$$

$$= \frac{800}{40} \qquad l = 20h + 100$$

c) Susanna rides another roller coaster. The **length** of the ride on this roller coaster is **500 m.**
Determine its **maximum height,** using your results from part **a)** or **b).** Justify your answer.

$$l = 20h + 100$$

$$500 = 20h + 100$$
$$-100 \qquad -100$$

$$\frac{400}{20} = \frac{20h}{20}$$

$$20 = h$$

Let l rep length

y int
$y = 100$

Length of Ride vs. Maximum Height

$(45, 1000)$

$(5, 20)$

Length of ride (m)

Maximum height (m)