

Name: _____
Date: _____

Final Review - 06
Systems of Equations 01

1. Which of the following statements about the system of equations below is true?

Eq. 1) $3y = -12x + 78$

Eq. 2) $6x - 2y - 32 = 0$

/4

- A) The system has **one** solution C) The system has **no** solutions
B) The system has **two** solutions D) The system has **infinite** solutions

2. Which of the following statements about the system of equations below is true?

Eq. 1) $4y = -28x + 76$

Eq. 2) $14x - 2y - 42 = 0$

/4

- A) The system has **one** solution C) The system has **no** solutions
B) The system has **two** solutions D) The system has **infinite** solutions

3. Brandon has decided to learn how to surf and must choose between two surfing schools
Each surfing school has two different billing rules.

- **School A** charges an **initial fee of \$ 705** and **costs an additional \$ 25 an hour.**

- **School B**
 - **After 3 hours, they charge \$ 380**
 - **After 7 hours, they charge \$640**

- a) What are the **rules** for **each school's** billing?
- b) Which school is **cheaper** to start at?
- c) After **how many hours** of lessons will each school's billing fee **be the same**
- d) What is the **amount** each school will charge when they charge the same amount for the same number of hours?

Answers:

- a) School A, rule: _____
School B, rule: _____
- b) School _____ is cheaper to start taking lessons at.
- c) The two schools charge the **same amount** after teaching Luke for _____ **hours**
- d) The fee at that point would be \$ _____

4. Gordon doesn't believe in banks or paper money and has decided instead to buy and then hide gold and silver bars in his basement.

Last year, he bought **19 silver bars** and **4 gold bars** for a total of **\$ 11 650**.

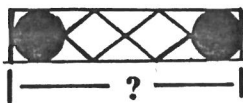
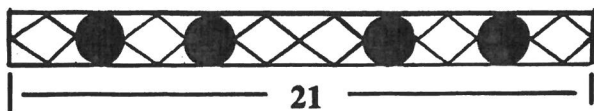
This year, he buys **2 silver bars** and **8 gold bars** for a total of **\$ 10 700**

Next year, he plans to spend **\$ 14 950** buying **7 silver bars** and **some gold bars**.

How many gold bars will he buy next year?

Answer: Gordon will buy _____ gold bars

5. Three line segments are made up of circles and diamonds.
Determine the length of the smallest segment.



The smallest segment measures _____ units