

# What Do You Call a Pony That Doesn't Whinny?

Write and graph an inequality that models the situation. Then answer the questions. Cross out the letters above each answer. Write the remaining letters in the spaces at the bottom.

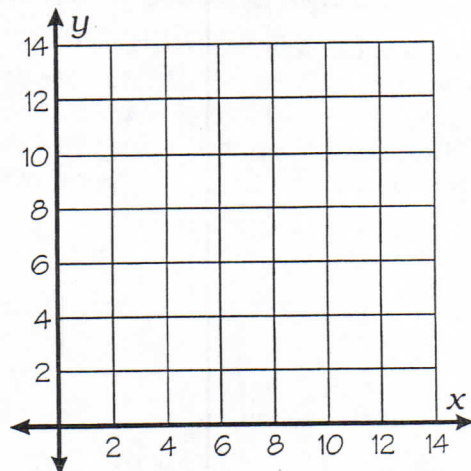
## Situation #1. Party Nuts.

Zark is buying peanuts and cashews for a party. He can spend no more than \$24. Peanuts cost \$2 per pound and cashews cost \$3 per pound.

Let  $x$  = number of pounds of peanuts  
Let  $y$  = number of pounds of cashews

inequality: \_\_\_\_\_

- Which of the following is a solution of the inequality:  
a. (2,8)   b. (4,6)   c. (8,2)
- What is the greatest number of pounds of peanuts that Zark can buy?
- If  $x = 6$  lb, what are all possible values of  $y$ ?



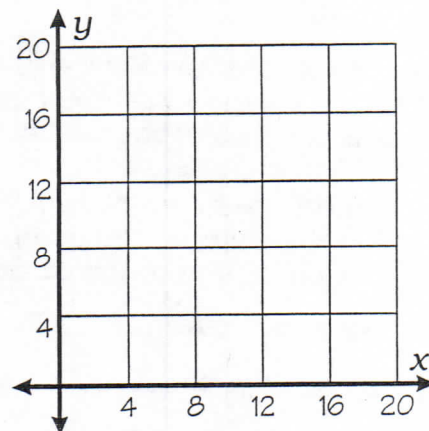
## Situation #2. Rub-a-dub-dub.

Kara is filling her bathtub. The cold water flows at a rate of 4 gal/min. The hot water flows at a rate of 3 gal/min. Kara wants no more than 60 gal of water in the tub.

Let  $x$  = time that cold water is turned on  
Let  $y$  = time that hot water is turned on

inequality: \_\_\_\_\_

- Which of the following is a solution of the inequality:  
a. (5,16)   b. (10,4)   c. (12,5)
- How many minutes will it take to get 60 gal of water if only cold water is turned on?
- If  $x = 3$  min, what are all possible values of  $y$ ?



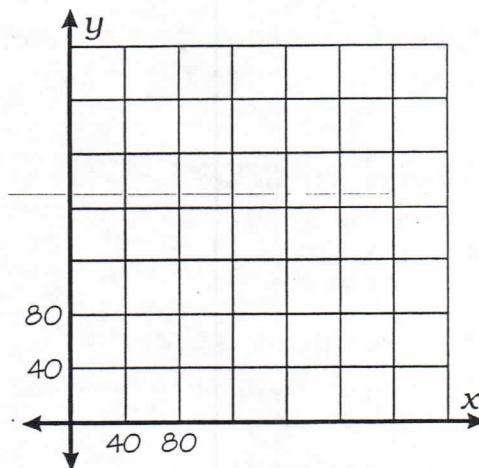
## Situation #3. Do You Wanna Dance?

Student Council is selling tickets to the Valentine Dance. Tickets cost \$5 per person or \$8 per couple. To cover expenses, at least \$1200 worth of tickets must be sold.

Let  $x$  = number of \$5 tickets sold  
Let  $y$  = number of \$8 tickets sold

inequality: \_\_\_\_\_

- Which of the following is a solution of the inequality:  
a. (160,40)   b. (40,160)   c. (80,80)
- How many \$8 tickets must be sold if no \$5 tickets are sold?
- If  $x = 80$  tickets, what are all possible values of  $y$ ?



<b>AP</b> $0 \leq y \leq 16$	<b>AL</b> (80,80)	<b>OT</b> 12	<b>B</b> 150	<b>IT</b> $y \geq 120$	<b>OO</b> (8,2)	<b>T</b> (5,16)	<b>HE</b> 15	<b>L</b> $0 \leq y \leq 6$
<b>EH</b> $0 \leq y \leq 12$	<b>R</b> $y \geq 100$	<b>O</b> (12,5)	<b>AR</b> 14	<b>TS</b> (40,160)	<b>ON</b> (10,4)	<b>S</b> 180	<b>E</b> (4,6)	<b>AT</b> $0 \leq y \leq 4$

# What Do You Call a New Movie That Is Just Like an Old Movie?

Write and graph a system of inequalities that models the situation. Circle the number-letter pair for each ordered pair that is a solution. Write the letter in the matching numbered box at the bottom.

## Situation 1. SOMETHING FISHY.

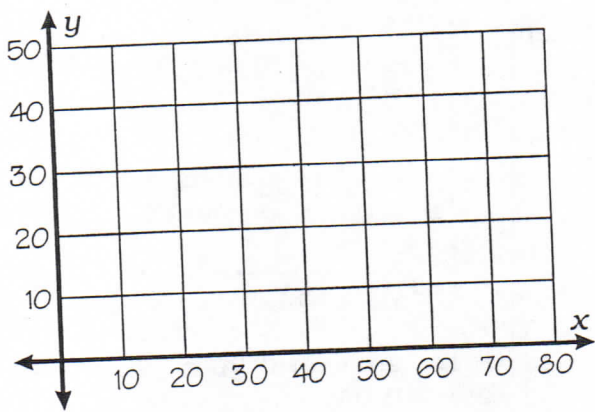
The owner of Fred's Fish Market orders cod and salmon. He wants to buy at least 50 pounds of fish but cannot spend more than \$300. Cod is \$4 per pound and salmon is \$7 per pound.

Let  $x$  = pounds of cod  
Let  $y$  = pounds of salmon

inequality #1: \_\_\_\_\_  
inequality #2: \_\_\_\_\_

Which of the following are solutions?

- 8•E** (40, 15)   **11•P** (50, 18)   **4•S** (30, 20)   **10•U** (55, 8)   **7•R** (20, 35)



## Situation 2. FLOWER POWER.

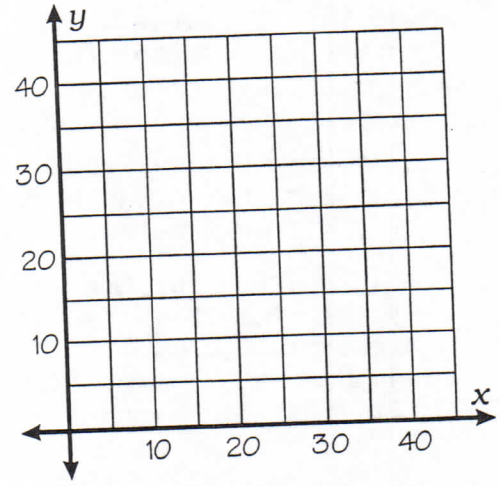
Mr. Bloom is designing a rectangular flower garden with a fence around it. He can use no more than 80 ft of fencing. He wants the width to be at least 5 ft and the length to be at least 20 ft.

Let  $x$  = width of the garden (ft)  
Let  $y$  = length of the garden (ft)

inequality #1: \_\_\_\_\_  
inequality #2: \_\_\_\_\_  
inequality #3: \_\_\_\_\_

Which of the following are solutions?

- 7•S** (10, 23)   **11•E** (7, 30)   **9•T** (18, 25)   **3•A** (8, 35)   **2•I** (20, 20)



## Situation 3. SPRING FLING.

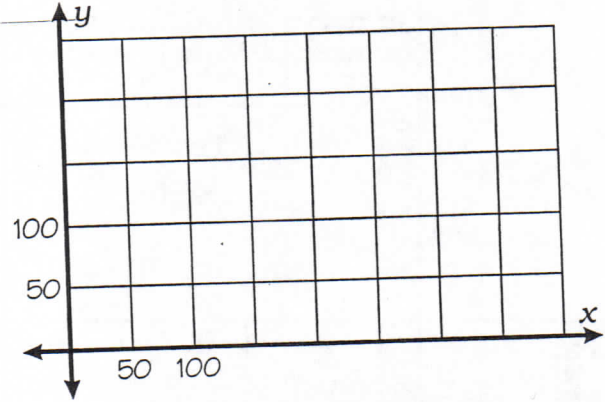
Tickets for the Spring Dance cost \$3 per person or \$5 per couple. To cover expenses, at least \$750 worth of tickets must be sold. However, no more than 400 people can fit in the gym where the dance is being held.

Let  $x$  = number of \$3 tickets sold  
Let  $y$  = number of \$5 tickets sold

inequality #1: \_\_\_\_\_  
inequality #2: \_\_\_\_\_

Which of the following are solutions?

- 5•H** (50, 110)   **12•L** (150, 70)   **9•Q** (280, 45)   **6•U** (300, 60)   **3•T** (0, 200)



	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>
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