

Name.....Period.....

1.

Two groups are going on a trip to a theater. The first group has 30 students and 4 adult chaperones. The second group has 25 students and 4 adult chaperones.

The cost, in dollars, for each student ticket, s , and each adult ticket, a , can be determined using the system of equations below.

$$\begin{aligned}30s + 4a &= 720 \\25s + 4a &= 620\end{aligned}$$

What is the cost for each **student** ticket?

- A. \$5
- B. \$20
- C. \$25
- D. \$30

2.

Solve the system of equations.

$$\begin{aligned}y &= 2x - 4 \\3y &= 2x\end{aligned}$$

Drag and drop a number into each appropriate box to complete the ordered pair that represents the solution to the system of equations. Each number may be used once, more than once, or not at all.

1 2 3 4 5 6 7 8

(,)

3.

Which values of x and y make the system of equations below true?

$$2x - y = -1$$

$$3x - y = -3$$

A. $x = -4$; $y = -7$

B. $x = -2$; $y = -3$

C. $x = 2$; $y = 5$

D. $x = 4$; $y = 15$

4.

A construction contractor received two deliveries of building supplies from a lumberyard. The two deliveries included 10 boxes of nails, which cost a total of \$110.

a. Write and solve an equation to determine n , the cost in dollars of one box of nails.

The table below shows the numbers of sheets of plywood, trim boards, and boxes of nails delivered, and the total cost of each delivery.

	Sheets of Plywood	Trim Boards	Boxes of Nails	Total Cost (\$)
First Delivery	6	40	5	609
Second Delivery	8	20	5	527

b. Using your answer from part (a) and the information from the table, create a system of equations that can be used to determine x , the cost in dollars of one sheet of plywood, and y , the cost in dollars of one trim board.

c. Determine the cost in dollars of one sheet of plywood and the cost in dollars of one trim board. Show or explain how you got your answer.

The contractor has an additional \$200 to spend. She tells her assistant to order at least 5 trim boards and as many sheets of plywood as possible with this money.

d. What is the maximum number of sheets of plywood that the assistant could order following the contractor's instructions? Show or explain how you got your answer.