Warm Up

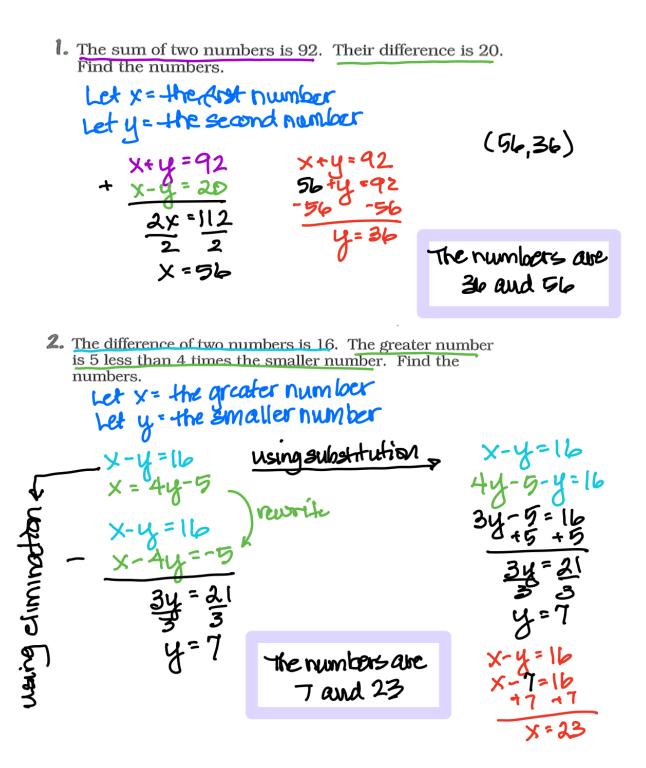
Get out your work from yesterday. Figure out what questions you may have.

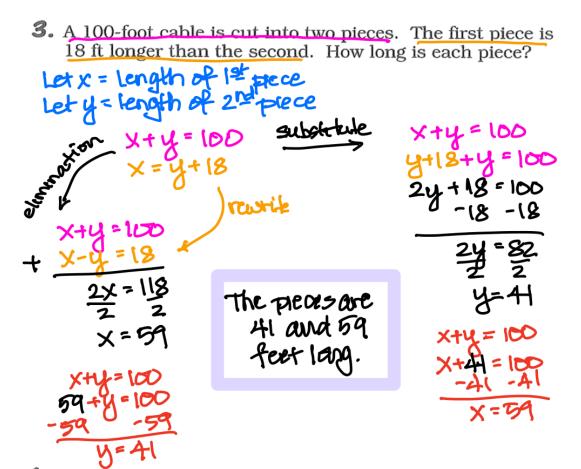
Questions were asked about 8 and 9. Check out the notes.

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Homework Questions?

What Do You Get When You Cross a Monastery With a Lion?





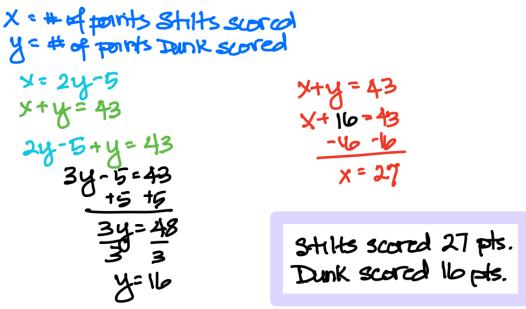
4. Three apples and four bananas cost \$4.85. Three apples and ten bananas cost \$8.75. Find the cost of an apple.

X = cost of a banana

$$3x + 4y = 4.85$$

 $3x + 4y = 4.85$
 $3x + 4y = 4.85$
 $3x + 4y = 4.85$
 $-by = -3.9$
 $-by = 0.65$
 $y = 0.65$
An apple costs * 0.75.
 $3x + 2b = 4.85$
 $3x + 2b = 4.85$
 $2.b = 2.6$
 $3x = 2.25$
 $x = 0.75$

5. Stilt scored 5 points less than twice the number scored by Dunk. Together they scored a total of 43 points. How many points were scored by each player?



6. Bert's age plus twice Ernie's age is 30. Three times Bert's age plus 8 times Ernie's age is 108. How old are Bert and Ernie?

X = Boch's age
y = Emie's age
-3[
$$x + 2y = 30$$
] $\rightarrow -3x - by = -90$
 $+ 3x + 8y = 108$ $+ 3x + 8y = 108$
 $\frac{1}{3}y = 18$
 $y = 9$
 $y = 9$
 $x + 2y = 30$
 $x + 2y = 30$
 $x + 2(9) = 30$
 $x + 18 = 30$
 $-18 - 18$
 $x = 12$

7. The Rocket Coaster has 15 cars, some that hold 4 people and some that hold 6 people. There is room for 72 people altogether. How many 4-passenger cars are there? How many 6-passenger cars are there?

$$\begin{aligned} x &= \text{# of } 4 \text{ passanger cans} \\ y &= \text{# of } b \text{ passanger cans} \\ - 4 [x + y = 15] \longrightarrow -4x - 4y = -60 \\ 4x + 6y = 72 + 4x + 6y = 72 \\ 4x + 6y = 72 + 4x + 6y = 72 \\ 2y &= 12 \\ 3 &= \frac{12}{3} \\ y &= 6 \\ x + y = 15 \\ x + b = 15 \\ -b - 5 \\ x = 9 \end{aligned}$$

%. Tickets to the Valentine Dance cost \$3 per person or \$5 per couple. If \$475 worth of tickets were sold and 180 people attended the dance, how many couples were there?

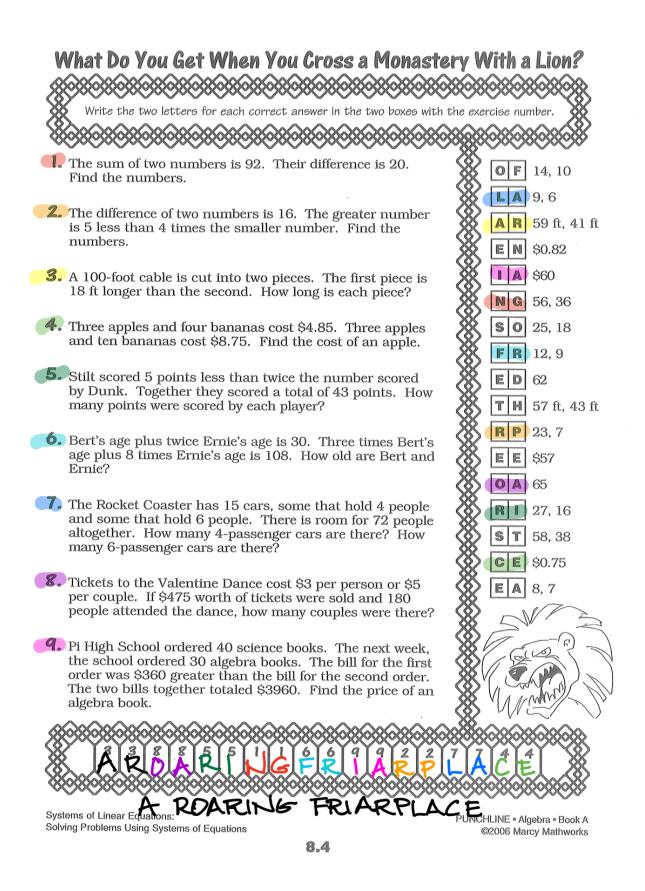
2 people $X = # af callesper couple Y = # of singles3 [2, x + y] = 1805 x + 3y = 475$	units are # of people $\rightarrow 6x + 3y = 540$ - 5x + 3y = 475 x = 655
There were 65 couples.	2x+y=1802(65)+y=180130+y=180-(30-130y=50

 \boldsymbol{q} . Pi High School ordered 40 science books. The next week, the school ordered 30 algebra books. The bill for the first order was \$360 greater than the bill for the second order. The two bills together totaled \$3960. Find the price of an algebra book. price of Science box Bill for 2nd Weck According y 40×+30 + BII 40(54)+30 SDX = FON 2160 + 3085 2160 An Algebra 1000K costs \$60

Substitution for 40x:

40x-30y=360 -40x+30y=3960

There are all kinds of ways to solve! > 40x = 360 + 30440x + 304 = 3960360 + 304 = 3960360 + 604 = 3960-360 - 360604 = 3600604 = 3600604 = 3600604 = 60



Classwork

For each problem, your set up should look like this:

Let x = Let y = 8x + 7y = 337 and 5x + 11y = 310

- The sum of two numbers is -11. Twice the first number minus the second number is 32. Find the numbers.
- A collection of nickels and dimes is worth \$3.30. There are 42 coins in all. How many of each kind of coin are there?
- One night a theater sold 548 movie tickets. An adult's ticket cost \$6.50, and a child's ticket cost \$3.50. In all, \$2881 was taken in. How many of each kind of ticket were sold?
- The perimeter of a rectangular field is 110 feet. The length is 7 feet more than twice the width. Find the dimensions of the field.
- A second run movie theater charges \$4 for an adult ticket and \$2 for a child's ticket. One night, 380 tickets were sold for a total of \$1320. How many children attended the movie that night?
- 6. The state fair is a popular field trip destination. This year the senior class at High School A and the senior class at High School B both planned trips there. High School A rented and filled 8 vans and 8 buses with 240 students. High School B rented and filled 4 vans and 1 bus with 54 students. Every van had the same number of students in it as did every bus. Find the number of students in each van and each bus.
- An orange has 20 fewer calories than a banana. If 7 bananas have the same number of calories as 9 oranges, how many calories are there in a banana?
- Alexis bought pizza and soda for the ski club meeting. For one meeting she bought 4 pizzas and 10 sodas for \$63. The next meeting she bought 3 pizzas and 8 sodas for \$48. What is the cost of one pizza?

Homework

Finish classwork