Problem of the Day

Ms. Red, Ms. Blue, and Ms. Green attended a holiday party. They each wore a different-colored dress, red, blue, or green. Ms. Red said to the lady wearing the blue dress, "Did you notice that none of us is wearing a dress with the color that corresponds to our name?" Who wore which color dress?

Feb 7-10:14 AM

12.5
12.6
12.7
Inequality Word Problems

2/7/18

Jan 26-11:52 AM

Edgar's August profit of $137 was at least $20 higher than his July profit. What was July's profit?

Let p represent the profit increase from July to August.

August profit was at least $20 higher than July's profit.

$137 ≥ 20 + p

$137 ≥ 20 + p

-20 -20 *Subtract 20 from both sides.*

$117 ≥ p

$p ≤ 117$ *Rewrite the inequality.*

July's profit was at most $117.

Jan 26-11:56 AM

Rylan's March profit of $172 was at least $12 less than his February profit. What was February's profit?

variable feb. profit Solution Set $x ≤ 184$

Inequality $172 ≥ x - 12$ Answer Phrase at most $184

$172 ≥ x - 12$

$+12 \quad +12$

$184 ≥ x$

Jan 26-11:56 AM

There are at least 17 more bus riders than walkers in a class. If there are 7 walkers, how many bus riders are there?

variable # of bus riders Solution Set $x ≥ 24$

Inequality $x ≥ 7 + 17$ Answer Phrase at least 24 riders

$x ≥ 7 + 17$

$x ≥ 24$

Jan 26-11:57 AM

It cost Josh $85 to make candles for the craft fair. How many candles must he sell at $4.00 each to make a profit?

variable # of candles Solution Set $x > 21.25$

Inequality $4x > 85$ Answer Phrase at least 22

$\frac{4x}{4} > \frac{85}{4}$

$x = 21.25$

Jan 26-11:57 AM

5. It cost a candle company $51 to make a dozen candles. How many candles must it sell at $7 apiece to make a profit?

variable # of candles Solution Set $x > 7.28$

Inequality $7x > 51$ Answer Phrase more than 7

$\frac{7x}{7} > \frac{51}{7}$

Jan 26-11:59 AM

Brice has $30 to take his brother and his friends to the movies. If each ticket costs $4.00, and he must buy tickets for himself and his brother, what is the greatest number of friends he can invite?

variable # of friends Solution Set $x \leq 5.5$

Inequality $4x + 8 \leq 30$ Answer Phrase at most 5

$4x + 8 \leq 30$

$-8 \quad -8$

$\frac{4x}{4} \leq \frac{22}{4}$ $x \leq 5.5$

Jan 26-12:00 PM

A cyclist has $7.00. At the first stop on the tour, energy bars are $1.15 each, and a sports drink is $1.75. What is the greatest number of energy bars the cyclist can buy if he buys one sports drink?

variable # of bars Solution Set $x \leq 4.65$

Inequality $1.75 + 1.15x \leq 7$ Answer Phrase at most 4

$1.75 + 1.15x \leq 7$

$-1.75 \quad -1.75$

$\frac{1.15x}{1.15} \leq \frac{5.25}{1.15}$

Jan 26-12:00 PM

Marc wants to buy a set of at least 6 antique chairs for his dining room. He has decided to spend no more than $390. What is the most he can spend per chair?

variable # of chairs Solution Set $x \leq 65$

Inequality $6x \leq 390$ Answer Phrase at most 65

$\frac{6x}{6} \leq \frac{390}{6}$

$x \leq 65$

Jan 26-12:04 PM

Lori has $54. She wants to buy a sweater that costs $28 and two CDs. What is the most she can spend on each CD assuming she buys two CDs at the same price?

variable cost of CD's Solution Set $x \leq 13$

Inequality _____ Answer Phrase at most 13

$54 \geq 28 + 2x$

$2x + 28 \leq 54$

$-28 \quad -28$

$\frac{2x}{2} \leq \frac{26}{2}$

$x \leq 13$

Jan 26-12:01 PM

Members at a yoga school pay $10 per class plus a one-time $100 membership fee. Non-members pay $15 per class. How many classes would a member have to take to save money compared to taking classes as a non-member?

variable _____ Solution Set _____

Inequality _____ Answer Phrase _____

Jan 26-12:02 PM

Alice earns 1.5 times her normal hourly rate for each hour she works after 40 hours in a week. She worked 50 hours this week and earned $660. What is her normal hourly rate?

variable _____ Solution Set _____

Inequality _____ Answer Phrase _____

Jan 26-12:02 PM