

For those who CANNOT access Digits and have talked to me about it, you can access the homework problems here.

You can either “Make a Copy” of this document and type your answers below the question OR do your homework on paper and turn it in to me by the due date.

1.

Which situation below does the inequality $6 + 5n \leq 60$ represent?

- A. You have \$60 to buy your friends lunch. If each lunch costs \$6 and you plan to share a \$5 dessert, how many friends can you bring?
- B. You have \$60 to buy your friends lunch. If each lunch costs \$5 and you plan to share a \$6 dessert, how many friends can you bring?
- C. You need to read 60 pages of a novel. You read 5 pages per minute. After how many minutes will you have fewer than 6 pages left?

...

The inequality $6 + 5n \leq 60$ represents situation



2.

A farmer has 24 bushels of apples and can harvest 21 bushels of apples each day. In how many days will she have more than 100 bushels to sell? What inequality represents this situation?

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Choose the correct answer below.

- ☐ A. $21n + 24 > 100$
- ☐ B. $100 - 21n < 24$
- ☐ C. $21n - 24 \geq 100$
- ☐ D. $21n + 24 \leq 100$

3.

Steve and Heather Pierce are celebrating their 25th anniversary by having a reception at a local reception hall. They have budgeted \$4,500 for their reception. The reception hall charges a \$50 cleanup fee plus \$31 per person. Write an inequality that you can use to find the greatest number of people that they can invite and still stay within their budget. Then solve and graph the inequality.

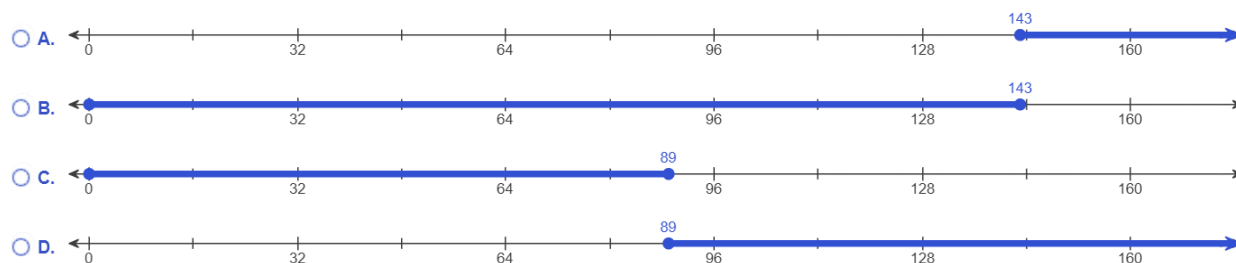
Which inequality models the situation?

- ☐ A. $50n + 31 \leq 4,500$
- ☐ B. $31n + 50 \leq 4,500$
- ☐ C. $31n + 50 \geq 4,500$
- ☐ D. $50n + 31 \geq 4,500$

Which inequality represents the solutions?

- ☐ A. $n \geq 143$
- ☐ B. $n \leq 89$
- ☐ C. $n \leq 143$
- ☐ D. $n \geq 89$

Which graph represents the solutions?



4.

Solve each inequality. Then compare the solutions.

$$3x + 5 > 11$$

$$-4x + 21 < 13$$

$$3x + 5 > 11$$

x

$$-4x + 21 < 13$$

x

Compare the solutions for $3x + 5 > 11$ and $-4x + 21 < 13$. Choose the correct answer below.

- ☐ A. The inequalities have some common solutions.
- ☐ B. The inequalities have the same solutions.
- ☐ C. The inequalities have no common solutions.
- ☐ D. The inequalities have one common solution.

5.

Solve each inequality. Then compare the solutions.

$$3x + 7 < 19$$

$$-2x + 17 < 9$$

$$3x + 7 < 19$$

x

$$-2x + 17 < 9$$

x

Compare the solutions for $3x + 7 < 19$ and $-2x + 17 < 9$. Choose the correct answer below.

- ☐ A. The inequalities have no common solutions.
- ☐ B. The inequalities have some common solutions.
- ☐ C. The inequalities have the same solutions.
- ☐ D. The inequalities have one common solution.