**Linear Inequalities Final Exam Review**

* **Representing Inequalities**
1. Write a word statement and display the solution graphically.

y > 20 x > 28 and x < 38

1. Represent the values shown below using inequalities.
2. Express each statement algebraically.

The total driving distance, “d”, will be a minimum of 300 km.

The number of days, “y”, the driver will drive per week will be more than 4.

1. A student wants to beat their previous test scores. The number line shows the possible scores.

Write a statement and an algebraic expression to represent the solution.

* **Solving Single Step Inequalities**
1. Solve.

x - 18 > 48 x < 20 6 – x > -144 -6.4x < -40

 -16

1. Verify whether the solution is correct for each inequality.

x – 10 < 20 x = 30 4x + 40 > 56

1. A company purchases parts that cost $140 each. How many parts can they buy if they spend no more than $5600?
2. A printing company charges $0.40 per page or $280 per month for unlimited printing. At what point would the monthly rate be the better option?
* **Solving Multi – Step Inequalities**
1. Solve and verify.

5x – 19 < 36

1. Solve.

-20y + 184 > 40 10y – 6 > - 4(6 – 12y)

 7 5

1. Verify that x > 8 is the correct solution to 12x + 44 > 140
2. A phone company charges $20 plus $0.05 per text message for one plan or a flate rate of $0.15 per text. How many text messages must be sent in order for the second plan to be the better option?
3. A standard cable plan costs $10 per channel. A member’s cable plan is $120 per month plus $1.80 per channel. How many channels must be purchased in order to make the member’s plan the better option?

**Questions to Review**

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Linear Inequalities Assignment

Linear Inequalities Test