## Algebra II Chapter 7 Part II Examination - Review

1. Verify whether or not the three ordered pairs given would be part of the solution for each inequality. Answer YES, or NO

|  | Inequality | $\mathbf{( 5 , - 3 )}$ | $\mathbf{( - 2 , 5 )}$ | $\mathbf{( 0 , - 5 )}$ |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{A}$ | $\mathrm{Y}>-5$ |  |  |  |
| $\mathbf{B}$ | $\mathrm{X} \geq-3$ |  |  |  |
| $\mathbf{C}$ | $3 X-4 Y \geq 7$ |  |  |  |
| D | $Y<-2 X+1$ |  |  |  |

2. For each inequality, state whether the boundary line is dashed (dotted) or solid AND on which side of the boundary line you should shade.

|  | Inequality | The boundary line is: | Shade on which side? |
| :--- | :--- | :--- | :--- |
| A | $\mathrm{Y}>-5$ |  |  |
| B | $X \geq-3$ |  |  |
| C | $3 X-4 Y \geq 7$ |  |  |
| D | $Y<-2 X+1$ |  |  |

3. Circle the response that makes the statement True.

Points on the boundary line of an inequality with û or ú are SOMETIMES ALWAYS NEVER part of the solution of the inequality.
4. Circle the response that makes the statement True.

Points on the boundary line of an inequality with > or < are SOMETIMES ALWAYS NEVER part of the solution of the inequality.
5. TRUE or FALSE

When transforming an inequality, the only time you switch the sense of the inequality sign is when you multiply or divide by a negative number.
6. Write the system of inequalities defining the shaded region with vertices $(2,3),(5,7),(0,-2)$, and $(5,-3)$.

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7. Graph the following:
A) $x<3$
B) $3 x-y>-1$
C) $y>-2$
D) $y \leq 3 x-2$
E) $y \leq-2 x+3$
$y>x-2$
F) $\begin{aligned} & 3 x+2 y>-6 \\ & 2 x-y \geq 4\end{aligned}$
8. In the Movie on the web page, assuming that the cabinet door is 1.0 meter tall, follow my watch and right foot in VideoPoint. Plot both items so that we see the "Trip to Tulsa" graph. Explain what it means at the intersection of these two graphs as it relates to my foot and my watch.
9. Given this set of data for the $\pi$ from a Circle investigation, evaluate $\pi$ and determine the closeness of this data to the True value. Make a scatter plot showing this value.

| A | 7 | 44 | 80 | 346 |
| :--- | :--- | :--- | :--- | :--- |
| R | 1.5 | 7.5 | 5 | 10.5 |

10. Explain what was going on in the situation that led to this graph in the Trip to Tulsa investigation.

