## Algebra II Class Worksheet \#4 Unit 3 page 1

Tom has a part-time job. He can work up to 20 hours a week. He gets paid $\$ 8.00$ per hour. Let t represent the number of hours he works. Let $\mathrm{P}(\mathrm{t})$ represent his total pay.

1. Make a table giving $t$ and $P(t)$ every 4 hours from $t=0$ to $t=20$.
2. Graph function $P$.

3. Write an equation giving $\mathrm{P}(\mathrm{t})$ in terms of t .
4. What is the domain of function P ?
5. Evaluate $\mathrm{P}(8)$. What does $\mathrm{P}(8)$ represent in terms of the problem?
6. What is the range of function P ?
7. If $\mathrm{P}(\mathrm{t})=28$, then find the value of t . Describe what this value of $t$ represents in terms of the problem.

## Algebra II Class Worksheet \#4 Unit 3 page 2

Bird Island is 30 miles due south of Blue Fin Bay. A Ferry sails from Blue Fin Bay to Bird Island at a constant speed of 12 miles per hour. Let $t$ represent the time in hours that the Ferry has been sailing. Let $\mathrm{D}(\mathrm{t})$ represent the distance in miles that the Ferry is from Bird Island.
8. Make a table giving $t$ and $\mathrm{D}(\mathrm{t})$ every half hour from $\mathrm{t}=0$ until the Ferry reaches Bird Island.
10. Write an equation giving $\mathrm{D}(\mathrm{t})$ in terms of t .
11. What is the domain of function D ?
13. Evaluate $\mathrm{D}(1)$. What does $\mathrm{D}(1)$ represent in terms of the problem?
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9. Graph function D.

12. What is the range of function D ?
14. If $D(t)=15$, then find the value of $t$. Describe what this value of $t$ represents in terms of the problem.

