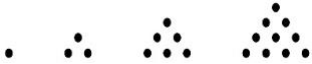
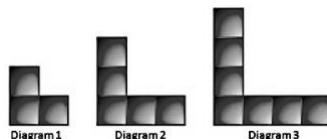
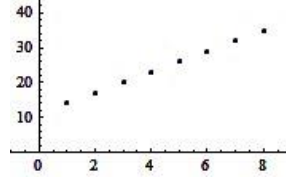
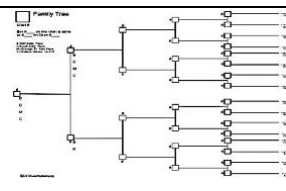


9B4A Linear Review

Name: _____ Per: _____

SHOW YOUR WORK. WORK IN PENCIL

1. Tell whether each of the following show a linear function. **Explain** how you know.

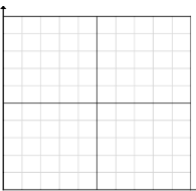
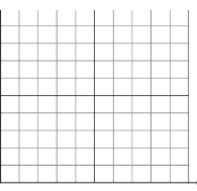
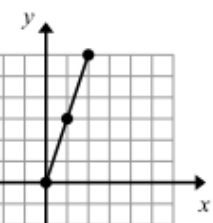
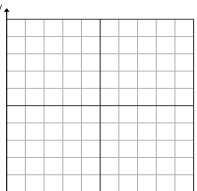
| | | | |
|---|---|--|---|
| <p>a. </p> | <p>h. </p> | <p>c. </p> | <p>d. </p> |
| <p>Linear? YES / NO Explain:</p> | <p>Linear? YES / NO Explain:</p> | <p>Linear? YES / NO Explain:</p> | <p>Linear? YES / NO Explain:</p> |

2. BYU fish and game students counted 275 trout in Brownton Pond. They decide to add 25 fish per week to get the stock ready for fishing season. Assume this is the only changes to the fish population. Make a **4-column table** showing the number of fish in the pond each week. State the equation and shifts.

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a. Equation: _____
 b. Vertical Shift: _____
 c. Vertical Stretch: _____
 E.C. Horizontal Shift: _____

In each of the following problems, you are given one representation of a function (situation/story, table, graph or equation). You will need to **complete the other three representations**.

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|--------|--------|--|--|--|--|--|--|--|--|--|-----|--------|--|-----|--|-----|--|--|--|--|--|--|
| <p>3. You and your friends go to the state fair. It costs \$5 to get into the fair and \$3 for each time you go on a ride.</p> <table border="1" style="width: 100px; height: 60px; margin-bottom: 10px;"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table> <p style="text-align: right;">Equation: _____</p> <div style="text-align: right;">  </div> | | | | | | | | | | | <p>4. You purchase a TV and take out a loan for \$675. Each month you make a fixed payment and your total loan decreases by your monthly payment of \$75 each month.</p> <table border="1" style="width: 100px; margin-bottom: 10px;"> <tr><td>x</td><td>$f(x)$</td></tr> <tr><td></td><td>675</td></tr> <tr><td></td><td>525</td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table> <p style="text-align: right;">Equation: _____</p> <div style="text-align: right;">  </div> | x | $f(x)$ | | 675 | | 525 | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
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| x | $f(x)$ | | | | | | | | | | | | | | | | | | | | | | |
| | 675 | | | | | | | | | | | | | | | | | | | | | | |
| | 525 | | | | | | | | | | | | | | | | | | | | | | |
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| <p>5. (Write a story)</p> <p style="text-align: center;">Equation: _____</p> <table border="1" style="width: 100px; margin-bottom: 10px;"> <tr><td>x</td><td>$f(x)$</td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table> <div style="text-align: center;">  </div> | x | $f(x)$ | | | | | | | <p>6. There are 300 fish in the pond. A crocodile is loose in the pond and is eating the fish. Each day the crocodile eats 15 fish.</p> <table border="1" style="width: 100px; height: 60px; margin-bottom: 10px;"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table> <p style="text-align: right;">Equation: _____</p> <div style="text-align: right;">  </div> | | | | | | | | | | | | | | |
| x | $f(x)$ | | | | | | | | | | | | | | | | | | | | | | |
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Write the equation for the line between the following points. (HINT: Make a table)

7. $(-15, 14), (-10, 4)$

8. $(50, 85), (60, 80)$

