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## DILATIONS Worksheet

1) Tell whether the following scale factors would create a SHRINK or a STRETCH.
a. 6
b. 3
c. $1 / 2$
d. 1.5
e. $1 / 4$
f. $2 / 3$
g. 2.7
h. $4 / 5$
i. $5 / 4$
2) Dilate the triangle with the following vertices by a scale factor of 2.

| Original Triangle's <br> Coordinates | Dilated Triangle's <br> Coordinates |
| :---: | :---: |
| $\mathbf{( x , y )}$ | $\mathbf{( 2 x , 2 \mathbf { y } )}$ |
| $(1,2)$ |  |
| $(-1,-1)$ |  |
| $(2,-2)$ |  |


3) Dilate the triangle with the following vertices by a scale factor of $1 / 2$.

| Original Triangle's <br> Coordinates | Dilated Triangle's <br> Coordinates |
| :---: | :---: |
| $\mathbf{( \mathbf { x } , \mathbf { y } )}$ | $\mathbf{( 1 / 2 \mathbf { x } , \mathbf { 1 } / \mathbf { y } \mathbf { y } )}$ |
| $(8,-2)$ |  |
| $(-4,0)$ |  |
| $(6,10)$ |  |


4) Dilate the triangle with the following vertices by a scale factor of 3.

| Original Triangle's <br> Coordinates | Dilated Triangle's <br> Coordinates |
| :---: | :---: |
| $\mathbf{( x , y )}$ | $\mathbf{( 3 x , 3 y )}$ |
| $(1,2)$ |  |
| $(-3,2)$ |  |
| $(4,-1)$ |  |


5) Dilate the triangle with the following vertices by a scale factor of $1 / 3$.

6) Dilate the triangle with the following vertices by a scale factor of 4.

| Original Triangle's <br> Coordinates | Dilated Triangle's <br> Coordinates |
| :---: | :---: |
| $\mathbf{( x , y )}$ | $\mathbf{( 4 x , 4 \mathbf { y } )}$ |
| $(1,-1)$ |  |
| $(2,-2)$ |  |
| $(1,2)$ |  |



