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## ROTATIONS Worksheet

1) Rotate the triangle with the following vertices $180^{\circ}$.

| Original Triangle's <br> Coordinates | Rotated Triangle's <br> Coordinates |
| :---: | :---: |
| $\mathbf{( x , y )}$ | $\mathbf{( - \mathbf { x } , \mathbf { y } )}$ |
| $(1,2)$ |  |
| $(4,2)$ |  |
| $(3,5)$ |  |


2) Rotate the triangle with the following vertices $90^{\circ}$ clockwise.

| Original Triangle's <br> Coordinates | Rotated Triangle's <br> Coordinates |
| :---: | :---: |
| $\mathbf{( x , y )}$ | $\mathbf{( y , - \mathbf { x } )}$ |
| $(1,2)$ |  |
| $(4,2)$ |  |
| $(3,5)$ |  |


3) Rotate the triangle with the following vertices $90^{\circ}$ counterclockwise.

| Original Triangle's <br> Coordinates | Rotated Triangle's <br> Coordinates |
| :---: | :---: |
| $\mathbf{( x , y )}$ | $\mathbf{( - y , \mathbf { x } )}$ |
| $(1,2)$ |  |
| $(4,2)$ |  |
| $(3,5)$ |  |


4) Rotate the triangle with the following vertices $180^{\circ}$.

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


5) Rotate the triangle with the following vertices $90^{\circ}$ clockwise.

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


6) Rotate the triangle with the following vertices $90^{\circ}$ counterclockwise.

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



