Function Notation and Transformations Worksheet

- Fill in Domain or Range of the following function transformation.
- Name the type of transformation

1) f(x, y) = (x – 3, y + 7)

Domain	Range
(3, 1)	(0, 8)
(-2, 4)	(-5, 11)
(-3, 6)	(-6, 13)

2) f(x, y) = (x + 7, y – 12)

Domain	Range
(3, 18)	(10, 6)
(-2, 2)	(5, -10)
(6, 30)	(13, 18)

3) f(x, y) = (x, - y)

Domain	Range
(15, 12)	(15, -12)
(6, 10)	(6, -10)
(5, 6)	(5, -6)

4) f(x, y) = (-x, -y)

Domain	Range
(-6, -5)	(6, -5)
(3, 2)	(-3, -2)
(6, -8)	(-6, 8)

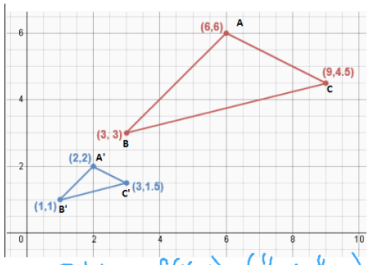
5) f(x, y) = (3x, 3y)

Domain	Range
(-2, 1)	(-6, 3)
(6, -5)	(18, -15)
(-3, 2)	(-9, 6)

6) f(x, y) = (½x, ½y)

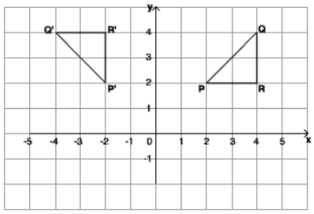
Domain	Range
(6, -3)	(12, -6)
(5, 1)	(10, 2)
(0, 4)	(0, 8)

7 & 8 Find the domain and range, then state the type of transformation.



Dilation $f(x,y) = (\frac{1}{3}x, \frac{1}{3}y)$

Domain	Range
(3, 3)	(1, 1)
(9, 4.5)	(3, 1.5)
(6, 6)	(2, 2)



Domain	Range
(2, 2)	(-2, 2)
(4, 2)	(-2, 4)
(4, 4)	(-4, 4)

90° CC Rotation $f(x,y) = (-y, x)$
270° C