Let $f(x)=(x+1)^2$ and $g(x)= -3f(-x) + 8$

Complete the table of values for g(x) which is a transformation of f(x).

Steps to take:
- Find the opposite of x
- Find substitute this into f(x)
- Take this result multiply by -3
- Take this result and add 8

What this represents is transforming the function f(x) by doing both an x-axis and y-axis reflection, making it 3 times taller, moving it 8 up.

x	$g(x)$
–2	–19
–1	–4
0	5
1	8

⟹

X	−X	f(−x)	g(x)
−2	2	9	−3(9) +8
−1	1	4	−3(4) +8
0	0	1	−3(1) +8
1	−1	0	−3(0) +8

Let $f(x)=|x|$ and $g(x)= 5f(x-3) - 7$

Complete the table of values for g(x) which is a transformation of f(x).

Steps to take:
- Find x-3
- Find substitute this into f(x)
- Take this result multiply by 5
- Take this result and subtract 7

What this represents is transforming the function f(x) by making it 5 times taller, moving it 3 right and 7 down.

x	$g(x)$
–2	18
–1	13
0	8
1	3

⟹

X	X−3	f(x−3)	g(x)
−2	−5	5	5(5) −7
−1	−4	4	5(4) −7
0	−3	3	5(3) −7
1	−2	2	5(2) −7