

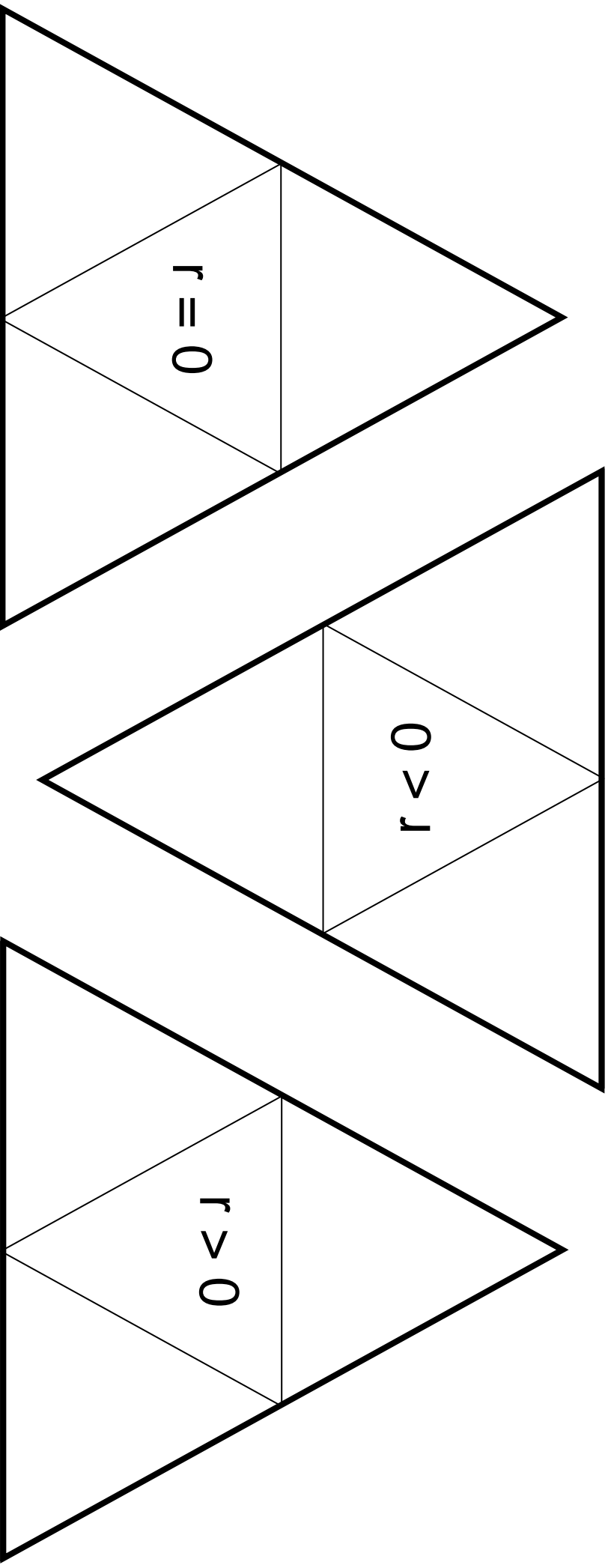
Teachers notes

Long Division/Factor and Remainder theorem triangles

The resource: There are 10 sets each with 3 large triangles and 9 small triangles. The small triangles will fit into the spaces on the large triangle and there should not be any gaps or extra pieces.

Suggested use – Long division: Students should use long division to find the remainders for each of the small triangles. This is best in groups of 3 or 4 as there are quite a lot to get through otherwise! They should also be encouraged to check each others working for common mistakes like – signs. Can be use to generate discussion about predictions of which ones will or won't work which is useful for the factor and remainder theorem.

Suggested use – Factor and remainder theorem: Can be used for factor and remainder theorem. In this case it should be relatively quick especially if they are encourages to use calculators.



$3x^3 - 20x^2 + 10x + 5$ Divided by $(x-6)$	$x^3 - 5x^2 - 6x - 56$ Divided by $(x-7)$	$x^4 + 5x^3 + 2x^2 - 7x + 2$ Divided by $(x+2)$	$-2x^3 + 3x^2 + 12x + 20$ Divided by $(x-4)$	$x^2 + 4x + 9$ Divided by $(x+5)$	$3x^4 - 8x^3 + 10x^2 - 3x - 25$ Divided by $(x+1)$	$3x^3 - 2x^2 + 4$ Divided by $(x-1)$	$6x^2 + 7x + 5$ Divided by $(2x+1)$
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