The National Orthodox School Shmaisani

Factorizing expressions

Worksheet 1

Objectives: to learn how to identify the highest common factor and how to use it to factorize expressions.

Match each expression from the first column, with its highest common factor from the second column and the factorized expression from the third column.

First Column **Expression**	Second column **Highest common factor**	Third column **Factorized Expression**
1 $3a + 6b - 9c$	9 $2y$	8 $5x^2(3 + 2x - x^2)$
2 $12x + 18y$	4 $2b$	7 $3p(3e + 4p)$
3 $9x - 3xy$	1 3	9 $2y(2yx - 1)$
4 $2ab - 6bd + 8bc$	5 g	1 $3(a + 2b - 3c)$
5 $mg + 2gl - 4kg$	10 $4ab$	10 $4ab(2x^2 + 4bx + 7ya)$
6 $-10ab - 12bc - 16bd$	2 6	4 $2b(a - 3d + 4c)$
7 $9ep + 12p^2$	8 $5x^2$	2 $6(2x + 3y)$
8 $15x^2 + 10x^3 - 5x^4$	3 $3x$	6 $-2b(5a + 6c + 8d)$
9 $4y^2x - 2y$	7 $3p$	5 $g(m + 2l - 4k)$
10 $8abx^2 + 16axb^2 + 28yba^2$	6 $-2b$	3 $3x(3 - y)$