

Brilliance Tuition Centre, Redbank Plains

MATHS WORKSHEETS- ALGEBRA- FACTORISE ALGEBRAIC EXPRESSION BY TAKING OUT THE COMMON FACTORS

Factorise the following by taking out the Common Factor.

1	$15a + 45 =$	
2	$3m^3 - 6m =$	
3	$24y^3 - 32y^2 =$	
4	$12xy^4 - 21xy =$	
5	$-55xy - 35x^2y^2 =$	
6	$-4x^2y^2 + 8xy^2 - 6y^2 - 10x^2y =$	
7	$15xy^2 - 21xy^2 =$	
8	$15xy^2 - 35x^2y^2 + 50xy =$	
9	$9t^3m^5 - 27tm^3 =$	
10	$5x^2 + 20xy =$	
11	$8m + 40 =$	
12	$5x^2y^2 + 50xy^2 =$	
13	$9r^3t^2 - 6r^2t^2 =$	
14	$-8xy + 56x^2y^2 =$	
15	$25ab + 45ac + 55ad =$	
16	$12xy + 36xy^2 + 60x^2y^2 =$	
17	$-x^2y^2 + xy^2 =$	
18	$-x^2 + 5xy =$	
19	$9xy - 3x^2y^2 + 12xy^2 =$	
20	$2a^2b + 6a^2b^2 - 12abc =$	

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Answer Key:

- 1) Identify the highest common factor and take it out.
- 2) Divide each term/expression by the H.C.F. and write the quotient inside the brackets.
- 3) Common Factor will be kept outside the bracket.

1 $15(a + 3)$

2 $3m(m^2 - 2)$

3 $8y^2(3y - 4)$

4 $3xy(4y^3 - 7)$

5 $-5xy(11 + 7xy)$

6 $-2y(2x^2y - 4xy + 3y + 5x^2)$

7 $3xy(5y - 7y)$

8 $5xy(3y - 7xy + 10)$

9 $9tm^3(t^2m^2 - 3)$

10 $5x(x + 4y)$

11 $8(m + 5)$

12 $5xy^2(x + 10)$

13 $3r^2t^2(3r - 2)$

14 $-8xy(1 - 7xy)$

15 $5a(5b + 9c + 11d)$

16 $12xy(1 + 3y + 5xy)$

17 $-xy^2(x - 1)$

18 $-x(x - 5y)$

19 $3xy(3 - xy + 4y)$

20 $2ab(a + 3ab - 6c)$