**Factoring Review Worksheet**

1. Factor the following polynomials by removing the greatest common factor.
2. 6m + 6n b. 7xy2 + 49 c. 15pq – 5 d. 8c + 12d

e. xy + y f. 6x2 – 9x g. 9ab – 12ac h. 48y2 – 72y5

1. Factor the following polynomials
2. 12x – 8y + 16z b. 9pq + 6pr – 15p c. t3 + t2 + t

d. 5x2 -10xy – 20xz e. 4abc – 2abd + 8abe f. 14a2b2 + 21a3b2 – 35a2b3

1. Complete the tables to find two numbers with the given sum and product.

|  |  |  |
| --- | --- | --- |
| Sum | Product | Integers |
| 5 | 6 |  |
| 8 | 7 |  |
| 11 | 30 |  |
| -11 | 30 |  |
| 8 | -20 |  |
| -8 | -20 |  |
| -1 | -20 |  |

|  |  |  |
| --- | --- | --- |
| Sum | Product | Integers |
| 11 | 10 |  |
| -8 | 15 |  |
| -15 | 56 |  |
| -18 | 56 |  |
| 3 | -70 |  |
| -11 | 28 |  |
| 0 | -16 |  |

4. Factor the following

1. x2 + 3x + 2 b. x2 – 3x + 2 c. x2 + 9x + 18

d. y2 – 12y + 35 e. y2 + 17y + 42 f. f2 - 10f + 21

g. c2 – 32c + 60 h. d2 + 18d + 45 i. m2 + 22m + 121

j. 2x2 + 6x + 4 k. 4x2 – 48x + 128 l. -2a2 – 30a -108

m. 5x2 – 20x + 15 n. ax2 – 14ax + 45a o. -5a4 + 50a3 – 120a2

p. . -2a2 + 2a + 220 q. b2x2 – 4b2x – 45b2 r. 2x3 + 2x2 – 40x

s. 3x2 +8x +4 t. 2x2 +7x -4 u. 4k2 -8k +3

v. 2x2 +7x +5 w. 24x2 – 30x - 9 x. 2y2 +7xy +3x2

1. Factor each binomial.
   1.  e. 
   2.  f. 
   3.  g. 
   4.  h. 

**Factoring Worksheet**

The following expressions test your skills with factoring.

1. 3a2 + 6a
2. 2x – 8xy
3. 36a3 – 4a2
4. 25a4 – 9y4
5. x2 + 7x + 12
6. 3a2 – 3b2
7. y2 – 11y + 28
8. 16x2 -8x + 1
9. 4x2 – 11x + 6
10. -1 + 9k2
11. 1 + 18y + 32y2
12. 2y2 – 8y3
13. x2 + 6x + 8
14. 56x2 + 9x -2
15. 16 – 28x + 10x2
16. 8 – 14y + 5y2
17. 6a2 + 5a + 1
18. x2 – xy
19. x2 + 3xy – x
20. a2 – 144
21. 3a2 – 36a – 36
22. 2y2 – 2y – 24
23. 2x2 – 8
24. 4y2 + 8y – 60
25. m4 – 16
26. 2x2 – 16x + 32
27. x3 – xy2
28. x4 – 5x2 + 4
29. -48 – 3y2
30. x2y3z – 2xy2