

Name: _____

Factoring

Fact + Factoring + Factors + Me!!!

Factor out the GCF (Factor completely):

1. $12x + 8$
2. $5x - 20$
3. $14y + 21z$
4. $12x^2 + 6x$
5. $50g^3 - 30g^7$
6. $18n^4 + 24n^6 - 30n^2$
7. $27z - 36z^5 + 45z^4$
8. $4y^4 + 12y^8 - 8y^5 - 16y^7$
9. $80x^5 + 60y^5 + 40z^5$
10. $10xy^2 + 15x^2y$
11. $24gk^4 + 36gk$
12. $16xy^3z - 14x^2yz^3$
13. $30m^6w^2 - 20m^4w^6$
14. $15pr^2 + 45p^3r^5$
15. $y^5z - 5y^2z^2$
16. $4x^4 + 12x^6 + 20x^2$
17. $24xy^3 + 12x^2y^2 + 20x^4y$
18. $5z^8 - 15z^5 - 10z^3$
19. $pt^2 + p^5t^2 - p^3t^3$
20. $36y^7 + 24y^4 - 48y^6 - 60y^5$

Answers on Back

Name: Answers**Factoring****Fact + Factoring + Factors + Me!!!**

Factor out the GCF (Factor completely):

1. $12x + 8 = 4(3x + 2)$
2. $5x - 20 = 5(x - 4)$
3. $14y + 21z = 7(2y + 3z)$
4. $12x^2 + 6x = 6x(2x + 1)$
5. $50g^3 - 30g^7 = 10g^3(5 - 3g^4)$
6. $18n^4 + 24n^6 - 30n^2 = 6n^2(3n^2 + 4n^4 - 5)$
7. $27z - 36z^5 + 45z^4 = 9z(3 - 4z^4 + 5z^3)$
8. $4y^4 + 12y^8 - 8y^5 - 16y^7 = 4y^4(1 + 3y^4 - 2y - 4y^3)$
9. $80x^5 + 60y^5 + 40z^5 = 20(4x^5 + 3y^5 + 2z^5)$
10. $10xy^2 + 15x^2y = 5xy(2y + 3x)$
11. $24gk^4 + 36gk = 12gk(2k^3 + 3)$
12. $16xy^3z - 14x^2yz^3 = 2xyz(8y^2 - 7xz^2)$
13. $30m^6w^2 - 20m^4w^6 = 10m^4w^2(3m^2 - 2w^2)$
14. $15pr^2 + 45p^3r^5 = 15pr^2(1 + 3p^2r^3)$
15. $y^5z - 5y^2z^2 = y^2z(y^3 - 5z)$
16. $4x^4 + 12x^6 + 20x^2 = 4x^2(x^2 + 3x^4 + 5)$
17. $24xy^3 + 12x^2y^2 + 20x^4y = 4xy(6y^2 + 3xy + 5x^3)$
18. $5z^8 - 15z^5 - 10z^3 = 5z^3(z^5 - 3z^2 - 2)$
19. $pt^2 + p^5t^2 - p^3t^3 = pt^2(1 + p^3 - p^2t)$
20. $36y^7 + 24y^4 - 48y^6 - 60y^5 = 12y^4(3y^3 + 2 - 4y^2 - 5y)$