

Name Answers Factoring Worksheet

Factor each of the following. Remember to factor out a GCF first if there is one.

1. $x^2 - 14x + 45$	2. $x^3 - 81x$ $x(x^2 - 81)$ $x(x - 9)(x + 9)$
3. $x^2 - 18x + 80$	4. $x^2 - 49$
5. $x^2 - 6x + 9$	6. $6x^2 + 6x$
7. $2x^2 + 40x + 198$ $2(x^2 + 20x + 99)$ $2(x + 9)(x + 11)$	8. $2x^2 + 3x - 9$
9. $x^2 - 3x - 88$	10. $x^2 - 16x + 48$
11. $3x^2 - 11x + 6$ <i>mult 18 add -11</i> $\begin{array}{r rr} & x & -3 \\ 3x & 3x^2 & -9x \\ -2 & -2x & 6 \end{array}$ $(3x - 2)(x - 3)$	12. $x^2 - 14x + 33$
13. $10x^2 + 10x - 300$	14. $6x^2 - 4x - 10$
15. $x^2 + 8x - 9$	16. $x^2 + 10x$ $x(x + 10)$

17. $49x^2 - 1$

$$(7x - 1)(7x + 1)$$

18. $x^2 + 5x - 50$

19. $x^2 + 10x + 24$

20. $x^2 + 6x - 16$

21. $9x^4 - 45x^3 + 36x^2$

$$9x^2(x^2 - 5x + 4)$$

$$9x^2(x - 4)(x - 1)$$

22. $x^2 - 16x + 60$

23. $x^2 + 8x - 20$

24. $10x^2 + 55x + 60$

$$5(2x^2 + 11x + 12)$$

$$5(x + 4)(2x + 3)$$

mult 24 add 11

	$x + 4$	
$2x$	$2x^2$	$8x$
3	$3x$	12

25. $2x^2 + 11x + 5$

26. $x^2 - 5x - 24$

27. $2x^2 - 12x + 16$

28. $x^2 + x - 90$

$$(x + 10)(x - 9)$$

29. $3x^2 - 300$

30. $x^2 - 16$

31. $5x^3 - 18x^2 + 9x$

32. $6x^2 + 3x$