The factor theorem

Name _____ Date _____

1. $2x^3 - 8x^2 - 34x + 120$; $x - 5$ is a factor → _____

2. $x^3 - 21x - 20$; $x - 5$ is a factor → _____

3. $2x^3 - 4x^2 - 16x$; $x + 2$ is a factor → _____

4. $x^3 + x^2 - 25x - 25$; $x + 1$ is a factor → _____

5. $2x^3 + 12x^2 + 6x - 20$; $x + 5$ is a factor → _____

6. $x^3 + 5x^2 + 2x - 8$; $x - 1$ is a factor → _____

7. $x^3 + 4x^2 + x - 6$; $x - 1$ is a factor → _____

The factor theorem

8. $2x^3 - 4x^2 - 50x + 100$; $x + 5$ is a factor → _____

9. $x^3 - 5x^2 + 2x + 8$; $x - 4$ is a factor → _____

10. $x^3 - 5x^2 - 9x + 45$; $x + 3$ is a factor → _____

11. $x^3 - 4x^2 + x + 6$; $x - 2$ is a factor → _____

12. $x^3 - 7x - 6$; $x - 3$ is a factor → _____

13. $x^3 - 7x^2 + 14x - 8$; $x - 4$ is a factor → _____

14. $x^3 - 7x^2 + 12x$; $x - 3$ is a factor → _____