Name:

Directions: Factor each polynomial completely. Double check your answer by multiplying the factors using any method for full credit. Box your answers.

| 1 | $x^{3}+125$ | 2 | $x^{3}-64$ |
| :--- | :--- | :--- | :--- |
| 3 | $x^{3}-27$ | 4 | $1-\mathrm{d}^{3}$ |
| 5 | $\mathrm{x}^{3}+27$ | 6 | $8 \mathrm{x}^{3}+27$ |
| 7 | $-\mathrm{x}^{3}-8$ | 8 | $648 \mathrm{~g}+1029 \mathrm{~g}^{4}$ |
| 9 | $64 \mathrm{x}^{3}+1$ | 10 | $343 \mathrm{~m}^{3}+64 \mathrm{p}^{3}$ |
| 11 | $\mathrm{y}^{3}+343 \mathrm{x}^{3}$ | 12 | $1029 \mathrm{yx}^{3}+24 \mathrm{y}^{4}$ |

Space to double check answers by multiplying the two factors

| 1 |  | 2 |  |
| :--- | :--- | :--- | :--- |
| 3 |  | 4 |  |
| 5 |  | 6 |  |
| 7 |  | 8 |  |
| 9 |  | 10 |  |
| 11 |  | 12 |  |

