Factoring Practice

**Factor each polynomial.**

|  |  |  |
| --- | --- | --- |
| **Grouping** | **Difference of Squares** | **Sum/Difference of Cubes** |
| Example: | Example:roots: | Example:roots: **Remember:** *same sign, change sign, PLUS* |
| 1.  | 2.  | 3.  |
| 4.  | 5.  | 6.  |
| 7.  | 8.  | 9.  |
| 10.  | 11.  | 12.  |

**Puzzle question 1: What is ?**

**Puzzle question 2: What is ?**

**Puzzle question 3: What set of two numbers will multiply to ,** *and* **add to ?**

|  |  |  |
| --- | --- | --- |
| **EXAMPLE:** 1. 2. 3. Write those numbers in the spaces: | **EXAMPLE:**1. 2. 3. Write those numbers in the spaces: | 13. 1. 2. 3. Write those numbers in the spaces: |
| 14. 1. 2. 3. Write those numbers in the spaces: | 15. 1. 2. 3. Write those numbers in the spaces: | 16. 1. 2. 3. Write those numbers in the spaces: |

**Solve for *x*.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EXAMPLE**

|  |  |
| --- | --- |
|   | or  |
|  |  |

So  | 17.

|  |  |
| --- | --- |
|   | or  |
|  |  |

So  | 18.

|  |  |
| --- | --- |
|   | or  |
|  |  |

So  |