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| \*Learning Target: |
| \*Critical Content: |

Factored Form –

Prime Numbers:

\*To factor something means to find

Ex1: Factor $-20x^{3}y^{2}$ completely. Ex1a: Factor $34x^{4}y^{3}$

Greatest Common Factor (GCF) –

Ex2: Find GCF of $12a^{2}b^{2}c$ and $18ab^{3}$ Ex2a: $6xy^{3} and 18yz$

Ex3: A florist has 20 roses and 30 tulips to make bouquets. What is the greatest number of identical bouquets she can make without having any flowers left over? How many of each kind of flower will be in each bouquet?

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| **8.1 Monomial and Factoring** |
| **Factor each monomial completely.** |
| 1) $95xy^{2}$ | 2) $42g^{3}h^{3}$ |
| 3) $-100q^{4}r$ | 4) $121abc^{3}$ |
| **Find the GCF of each set of monomials.** |
| 5) $25x^{3}$ $45x^{4}$ $65x^{2}$GCF: | 6) $30gh^{2}$ $42g^{2}h$ $66g$GCF: |
| 7) $42a^{2}b$ $6a^{2}$ $18a^{3}$GCF: | 8) $15r^{2}t$ $35t^{2}$ $70rt$GCF: |
| 9) Dominick has 54 chocolate chip, 40 oatmeal raisin, and 30 peanut butter cookies. He wants to package the same number of cookies in each bag, and each bag should have every type of cookie. If he puts the greatest possible number of cookies in each bag, how many bags can he make? |
| 10) Alexa is donating packages of school supplies to an elementary school where she volunteers. She bought 200 pencils, 150 glue sticks, and 120 folders. How many packages can Alexa make using an equal number of each item? How many items of each type will each package contain? |