7-3 Polynomials

Define (p376-377):

Polynomial:

Binomial:

Trinomial:

Degree of a monomial:

Degree of a polynomial:

Ascending order:

Descending order:

Examples:

|  |  |  |
| --- | --- | --- |
| monomial | binomial | trinomial |
| 7 | 3+4y | x+y+z |
| $$4ab^{3}c^{2}$$ | $$7pqr+pq^{2}$$ | $$3v^{2}-2w+ab^{3}$$ |

1. X
2. -8
3. 2x-3yz
4. $4a^{2}+5a+a+9$

Degree of a monomial:

|  |  |
| --- | --- |
| Monomial | degree |
| $$8y^{4}$$ | 4 |
| 3a | 1 |
| $$-2xy^{2}z^{3}$$ | 6 |
| 7 | 0 |

Degree of a polynomial:

|  |  |  |  |
| --- | --- | --- | --- |
| polynomial | terms | Degree of each term | Degree of polynomial |
| $$5mn^{2}$$ | $$5mn^{2}$$ | 3 | 3 |
| $$-4x^{2}y^{2}+3x^{2}+5$$ | $$-4x^{2}y^{2}, 3x^{2}, 5$$ | 4,2,0 | 4 |
| $$3a+7ab-2a^{2}b+16$$ | 3a, 7ab, $2a^{2}b, 16$ | 1,2,3,0 | 3 |