

Chapter 3 Section 1: Monomials

Problems

Identify each as either a monomial or not a monomial. In the blank space, write M if it is a monomial, and write N if it is not a monomial.

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|-----|------------------------|-----|---------------------------------|-----|----------------------------------|
| 1. | $4a$ _____ | 2. | $5c$ _____ | 3. | $-6 + c$ _____ |
| 4. | $2 - n$ _____ | 5. | $\sqrt{x + y}$ _____ | 6. | $r + s$ _____ |
| 7. | $6A - \sqrt{t}$ _____ | 8. | $D - 5n$ _____ | 9. | $2A \cdot 8W$ _____ |
| 10. | $5s \cdot 3p$ _____ | 11. | $9abcd$ _____ | 12. | -5 _____ |
| 13. | x^9 _____ | 14. | $12m \cdot 2T \cdot (-4)$ _____ | 15. | $9y \cdot (-8d) \cdot 14y$ _____ |
| 16. | $24s + 13t - 2s$ _____ | | | | |

Some of the following are monomials, and some are not. For those that are monomials, write them in standard form. For those that are not monomials, write N in the space provided.

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|-----|---|-----|--|-----|--------------------------------|
| 17. | $3t \cdot 4a$ _____ | 18. | $5g \cdot 2b$ _____ | 19. | $7 - 21T$ _____ |
| 20. | $18\sqrt{r} - 9$ _____ | 21. | $14 \cdot x \cdot 2s$ _____ | 22. | $23z \cdot t \cdot 3w$ _____ |
| 23. | $14x \cdot m \cdot 3w$ _____ | 24. | $87 - 4s$ _____ | 25. | $26 \cdot 2t \cdot (-4)$ _____ |
| 26. | $19 \cdot 3y \cdot (-8)$ _____ | 27. | $(-6h) \cdot 6t \cdot 6a$ _____ | 28. | $5m \cdot (-T) \cdot 5b$ _____ |
| 29. | $6r \cdot 5q \cdot 4p$ _____ | 30. | $13x^2 \cdot (-y^3) \cdot 14y^5 \cdot (-2x)$ _____ | | |
| 31. | $(-m^3) \cdot 21t^2 \cdot 2m \cdot (-3t^3)$ _____ | 32. | $u^2v \cdot (-2uv^2)$ _____ | | |
| 33. | $(-2x^2)(-3x^7)(-4x^3)$ _____ | | | | |

Write each product as a monomial in standard form. Identify its coefficient and degree.

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|--|--|--|
| <p>34. $5 \cdot x \cdot 3 \cdot x$
Standard form: _____
Coefficient: _____
Degree: _____</p> | <p>35. $4 \cdot y \cdot 3 \cdot y$
Standard form: _____
Coefficient: _____
Degree: _____</p> | <p>36. $w \cdot 6 \cdot w \cdot 4 \cdot w$
Standard form: _____
Coefficient: _____
Degree: _____</p> |
| <p>37. $9 \cdot m \cdot m \cdot 2 \cdot m$
Standard form: _____
Coefficient: _____
Degree: _____</p> | <p>38. $r^2 \cdot 6 \cdot r \cdot 2$
Standard form: _____
Coefficient: _____
Degree: _____</p> | <p>39. $x \cdot 9 \cdot x^3 \cdot 4 \cdot x^2$
Standard form: _____
Coefficient: _____
Degree: _____</p> |
| <p>40. $8 \cdot y^2 \cdot 6 \cdot y^4 \cdot y$
Standard form: _____
Coefficient: _____
Degree: _____</p> | | |

Write each monomial in standard form.

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|--|--|---|
| <p>41. $8 \cdot x^2 \cdot y \cdot 3 \cdot xy^3$
_____</p> | <p>42. $7 \cdot t^3 \cdot u \cdot 5 \cdot tu$
_____</p> | <p>43. $9 \cdot m^2 \cdot n^2 \cdot 7 \cdot mn$
_____</p> |
| <p>44. $h^4 \cdot 6 \cdot g^2 \cdot 5g \cdot 2h$
_____</p> | <p>45. $q^3 \cdot 8p \cdot 3 \cdot q^2 \cdot 4p$
_____</p> | <p>46. $(-3r^2)(-2d)(-4m^3s^2)(3rs)$
_____</p> |
| <p>47. $(-2t^3)(5tx^2)(-6b^2)(3bt)$
_____</p> | <p>48. $(3a^2b^3)(5abc^2)(2ac^4)$
_____</p> | <p>49. $(4xy^2)(3x^2y^2z)(5y^3z^2)$
_____</p> |

In each problem, some monomials are listed. Write their product as a monomial in standard form.

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|--|---|---|
| <p>50. $6b^3, 5t^2, 4a,$ and $3abt$
_____</p> | <p>51. $-7p^2, -3k, 5b,$ and $-2m$
_____</p> | <p>52. $-4r^3, 5n^2, -8q,$ and $-3t^2$
_____</p> |
|--|---|---|