

Section 2.3 – Factoring out Monomials

Problem Set 2

Find the greatest common factors of the following pairs of monomials.

1. $-9ab$ and $-10a^5b$
2. $12r^4s^3t$ and $q^3r^2t^2$
3. $2a^2b^3d$ and $-10ab^4c^4$
4. $2w^3x^2y^4z^4$ and $-6wy$
5. $-11a^4b^2$ and $-9a^5b^2c$
6. $6w^5$ and $8w^3$
7. $7qr^4$ and $-3qr^5s$
8. $-7ab^4c^3$ and $-7b^4c^4$
9. $9ab^4$ and $-4ab^4$
10. $-3q^3r^5$ and $3r^2$
11. $9a^4$ and $4b$
12. q^2r^5s and $-3r^4s$

Factor the following expressions.

13. $30a^{12} + 6a^{18}b^{11}$
14. $-28x^7 - 91x^6 - 35x^5 - 49x^3 + 91x^2 + 42x$
15. $16b^6 - 28b^5$
16. $-a^{19}b^6c - 11a^6b^6c + 3a^8b^{17}c^{14}$
17. $-39w^{11}x^6 - 156w^7x^6 - 117w^4x^6 + 78w^{16}x^6$
18. $-90w^3 - 70w^2$
19. $2q^{10} + 4q^7 - 22q^{12} - 10q^{14}r^{12}$
20. $20x^7 + 4x^6 - 44x^3 + 36x^2$
21. $-75a^7 + 225a^6$
22. $-16q^7r^8 + 48q^{18}r^6$
23. $-16w^9x^4 + 8w^{10}x^4 + 8w^{13}x^4$
24. $42a^7 - 126a^6 - 98a^5$