Math 9

Factoring Common Expressions

Factor the common factor out of each expression.

1) $8m + 56$

$= 8(m+7)$

2) $-6p^2 - 2p$

$= -2p(3p+1)$

3) $35ab^4 + 14a$

$= 7a(5b^4+2)$

4) $21xy^2 + 6xy^3$

$= 3xy^2(7+2y)$

5) $3n^6 - 5n^3 - 7n^2$

$= n^2(3n^4 - 5n - 7)$

6) $-40b^4 - 10b^2 - 20b$

$= -10b(4b^3 + b + 2)$

7) $40ba + 30ba^2 + 25b$

$= 5b(8a + 6a^2 + 5)$

8) $6u + 18u^4v^2 + 30u^5v^7$

$= 6u(1 + 3u^3v^2 + 5u^4v^7)$

9) $-30a^2c^5 + 12a^3b^4 + 48a^3c^3 - 30a^3bc$

$= -6a^2(5c^5 - 2ab^4 - 8ac^3 + 5abc)$

10) $63r^3p - 9r^9 - 54r^4 - 45r^3q^2$

$\hookrightarrow = 9r^3(7p - r^6 - 6r - 5q^2)$