Name: _____

Date: _____ Score: _____

MATH MONKS

GCF of Expressions with Variables and Exponents

Find the greatest common factor.

[1] $24k^2(k^2 - 2k)^5$, $10(k^2 - 2k)$

GCF = _____

[2] $24b(a + 4b)^5$, $(a + 4b)^5$, $b(a + 4b)^2$

GCF = _____

[3] $5m^3n^3(m-n)^4$, $25(-n+m)^5$

GCF = _____

[4] $p^2qr^2(-pqr + 14)$, $pqr^2(14 - pqr)^2$

GCF = _____

[5] $27u^5v^7$, $36(u^7v^9 + u^5v^7)$

GCF = _____

[6] $27x^3 - 64y^3$, $9x^2 + 12xy + 16y^2$

GCF = _____

[7] $7p^2q^3(p + 4)^5$, $(p + 4)^5(p-2)^3$

GCF = _____

[8] $12a^8(b + c)^8$, $21a^9(b + c)^2(b + c)^5$

GCF = _____

[9] $39gh^2$, $52g^2h(g^2 - 2h)^6$

GCF = _____

[10] $40(cd + c)^6$, $50(d + 1)^7$

GCF = _____

Name: _____

Date: _____ Score: _____

MATH MONKS

GCF of Expressions with Variables and Exponents

Answers

[1] $24k^2(k^2 - 2k)^5$, $10(k^2 - 2k)$

GCF = $2(k^2 - 2k)$

[2] $24b(a + 4b)^5$, $(a + 4b)^5$, $b(a + 4b)^2$

GCF = $(a + 4b)^2$

[3] $5m^3n^3(m-n)^4$, $25(-n+m)^5$

GCF = $5(m - n)^4$

[4] $p^2qr^2(-pqr + 14)$, $pqr^2(14 - pqr)^2$

GCF = $pqr^2(14 - pqr)$

[5] $27u^5v^7$, $36(u^7v^9 + u^5v^7)$

GCF = $9u^5v^7$

[6] $27x^3 - 64y^3$, $9x^2 + 12xy + 16y^2$

GCF = $9x^2 + 12xy + 16y^2$

[7] $7p^2q^3(p + 4)^5$, $(p + 4)^5(p-2)^3$

GCF = $(p + 4)^5$

[8] $12a^8(b + c)^8$, $21a^9(b + c)^2(b + c)^5$

GCF = $3a^8(b + c)^7$

[9] $39gh^2$, $52g^2h(g^2 - 2h)^6$

GCF = $13gh$

[10] $40(cd + c)^6$, $50(d + 1)^7$

GCF = $10(d + 1)^6$