

Gr 10 Factoring Review #4

Factor the common factor out of each expression.

1) $63n - 90n^2 + 63n^3$

$$9n(7 - 10n + 7n^2)$$

2) $45q^2r^3 + 81qr^4 + 81p$

$$9(5q^2r^3 + 9qr^4 + 9p)$$

Factor each completely.

3) $n^2 - 10n + 24$

$$(n - 4)(n - 6)$$

4) $24v^2 - 140v + 144$

$$4(6v^2 - 35v + 36)$$

$$4(6v^2 - 27v - 8v + 36)$$

$$4(3v(2v - 9) - 4(2v - 9))$$

$$4(2v - 9)(3v - 4)$$

216	1
108	2
72	3
54	4
36	6
-27	-8

5) $5x^2 + 40x - 45$

$$5(x^2 + 8x - 9)$$

$$5(x + 9)(x - 1)$$

6) $5n^2 - 40n$

$$5n(n - 8)$$

7) $24x^2 + 144x + 162$

$$6(4x^2 + 24x + 27)$$

$$6(4x^2 + 18x + 6x + 27)$$

$$6(2x(2x + 9) + 3(2x + 9))$$

$$6(2x + 9)(2x + 3)$$

108	1
54	2
36	3
27	4
18	6

8) $64m^2 - 100$

$$4(16m^2 - 25)$$

$$4(4m + 5)(4m - 5)$$