

Mathematics 10D

4.5 – Factoring Special Cases

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$$1) \quad \underline{9x^2} - \underline{25}$$

Difference
of
squares

$$(3x + 5)(3x - 5)$$

~~$$9x^2 - 15x + 15x - 25$$~~

$$3) \quad 3x^2 - 48$$

$$3(x^2 - 16)$$

$$3(x - 4)(x + 4)$$

$$2) \quad 16n^2 - 1$$

$$(4n + 1)(4n - 1)$$

$$4) \quad 48v^2 - 75$$

$$3(16v^2 - 25)$$

$$3(4v - 5)(4v + 5)$$

$$5) \textcircled{1} a^2 \textcircled{+} 10a + \textcircled{25} \quad 5, 5$$

$$= (a + 5)^2$$

$2(5a) = 10a$

$$7) 125k^2 - 200k + 80$$

$$= 5(25k^2 - 40k + 16)$$

$$= 5(5k - 4)^2$$

$2(20k) = 40k$

$$6) \underline{25}n^2 + 30n + \underline{9}$$

$$(5n + 3)^2$$

$2(15n) = 30n$

$$8) 18x^2 + 48x + 32$$

$$2(9x^2 + 24x + 16)$$

$$2(3x + 4)^2$$

$$x^{64} - 1$$