

Practice - Factoring Special Products

1. $x^2 - 100$ GCF? * DOTS? $a^2 = x^2 \Rightarrow a = x$ $b^2 = 100 \Rightarrow b = 10$ $(x-10)(x+10)$	2. $49x^2 - 1$ GCF? * DOTS? $a^2 = 49x^2 \Rightarrow a = 7x$ $b^2 = 1 \Rightarrow b = 1$ $(7x+1)(7x-1)$
3. $64x^2 - 9$ GCF? * DOTS? $a^2 = 64x^2 \Rightarrow a = 8x$ $b^2 = 9 \Rightarrow b = 3$ $(8x+3)(8x-3)$	4. $81x^4 - 4$ GCF? * DOTS? $a^2 = 81x^4 \Rightarrow a = 9x^2$ $b^2 = 4 \Rightarrow b = 2$ $(9x^2+2)(9x^2-2)$
5. $36x^2 - 49y^2$ GCF? DOTS? $a^2 = 36x^2 \Rightarrow a = 6x$ $b^2 = 49y^2 \Rightarrow b = 7y$ $(6x+7y)(6x-7y)$	6. $\frac{8x^2 - 50}{2}$ GCF? 2 DOTS? $\frac{4x^2 - 25}{2}$ $a^2 = 4x^2 \Rightarrow a = 2x$ $b^2 = 25 \Rightarrow b = 5$ $2(2x+5)(2x-5)$
7. $\frac{27x^2 - 12}{3}$ GCF? 3 DOTS? $\frac{9x^2 - 4}{3}$ $a^2 = 9x^2 \Rightarrow a = 3x$ $b^2 = 4 \Rightarrow b = 2$ $3(3x+2)(3x-2)$	8. $\frac{36x^2 - 6}{6}$ GCF? 6 DOTS? $\frac{6x^2 - 1}{6}$ $6(6x^2 - 1)$
9. $\frac{20x^2 + 45y^2}{5}$ GCF? 5 DOTS? $\frac{4x^2 + 9y^2}{5}$ $5(4x^2 + 9y^2)$	10. $\frac{36x^2 - 81y^4}{9}$ GCF? 9 DOTS? $\frac{4x^2 - 9y^4}{9}$ $a^2 = 4x^2 \Rightarrow a = 2x$ $b^2 = 9y^4 \Rightarrow b = 3y^2$ $9(2x+3y^2)(2x-3y^2)$