https://github.com/hyeonjang/numerical-optimization
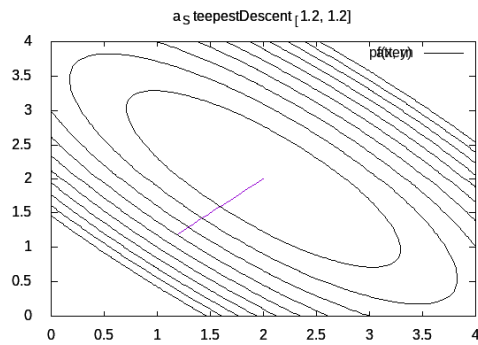20211046
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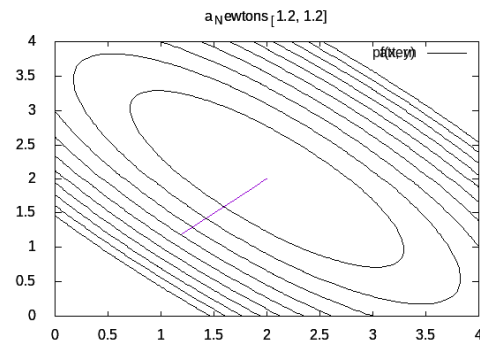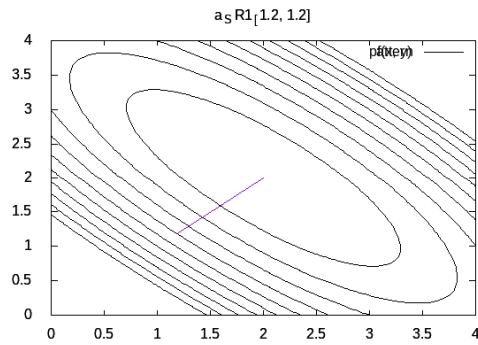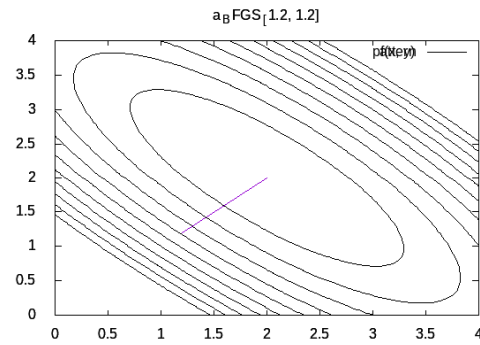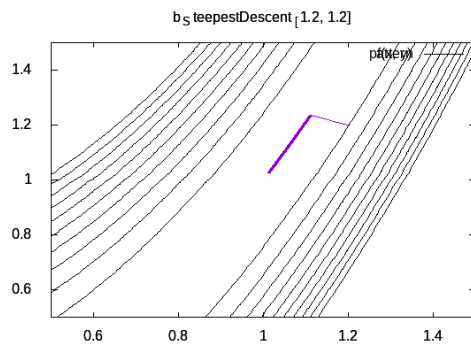
Homework 3

(a) SteepestDescent
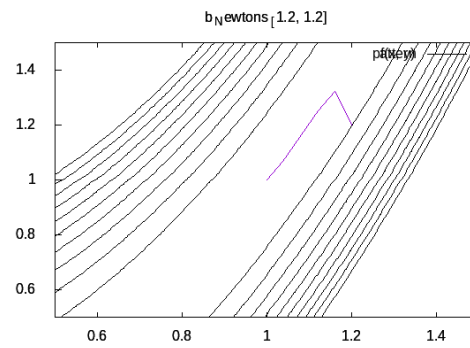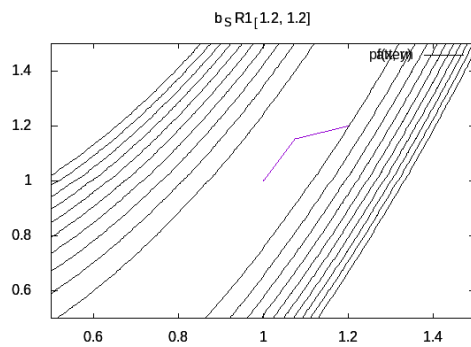
(b) Newtons

(c) SR1

(d) BFGS

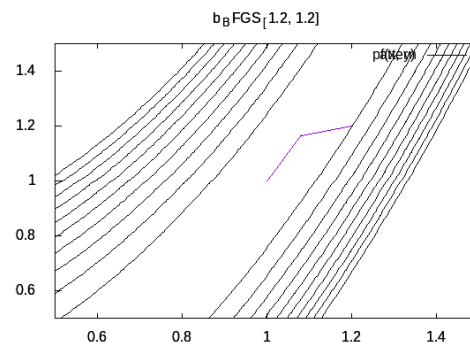Figure 1: $f(x, y) = (x + 2y - 6)^2 + (2x + y - 6)^2$
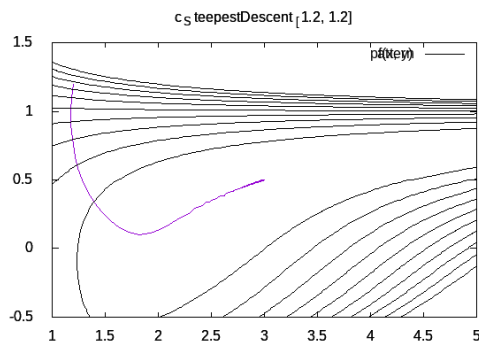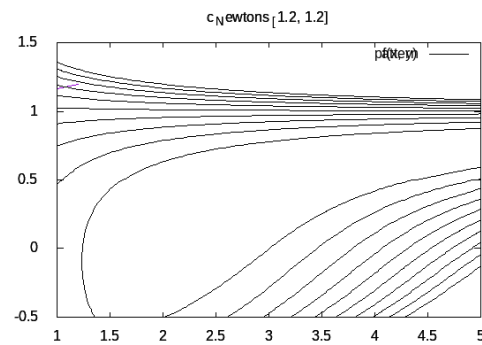
(a) SteepestDescent

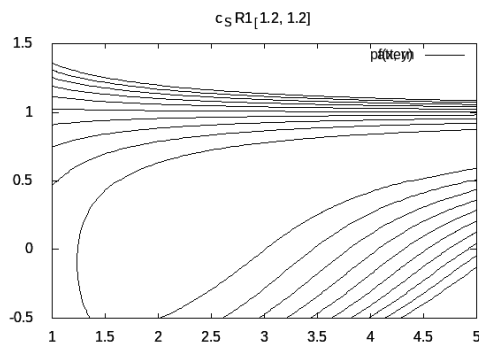(b) Newtons

(c) SR1

(d) BFGS

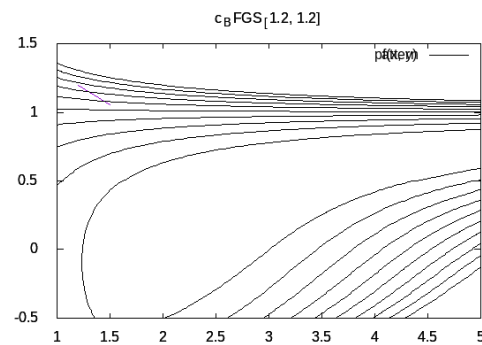Figure 2: $(x, y) = 50 * (y - x^2)^2 + (1 - x)^2$

(a) SteepestDescent

(b) Newtons
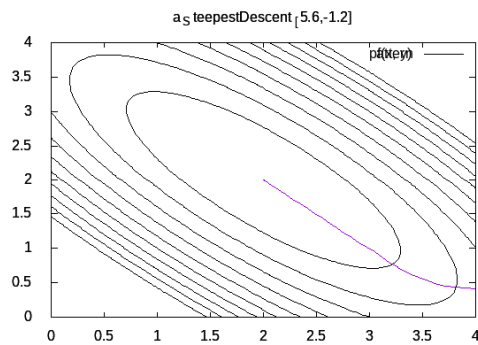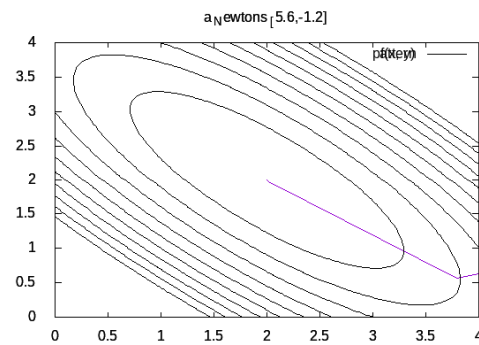
(c) SR1

(d) BFGS

Figure 3: $f(x, y) = (1.5 - x + xy)^2 + (2.25 - x + xy^2)^2 + (2.625 - x + xy^3)^2$

(a) SteepestDescent

(b) Newtons

(c) SR1

(d) BFGS

Figure 4: $f(x, y) = (x + 2y - 6)^2 + (2x + y - 6)^2$

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(a) SteepestDescent
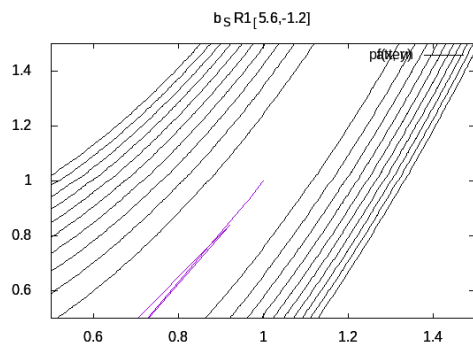
(b) Newtons

(c) SR1

(d) BFGS

Figure 5: $(x, y) = 50 * (y - x^2)^2 + (1 - x)^2$

(a) SteepestDescent

(b) Newtons

(c) SR1

(d) BFGS

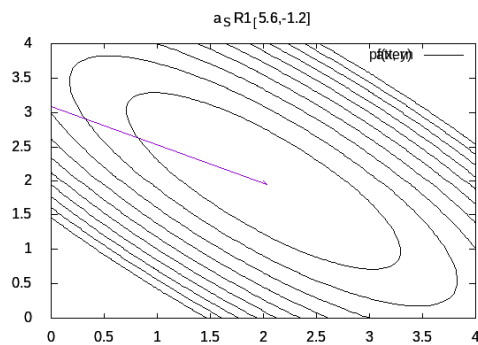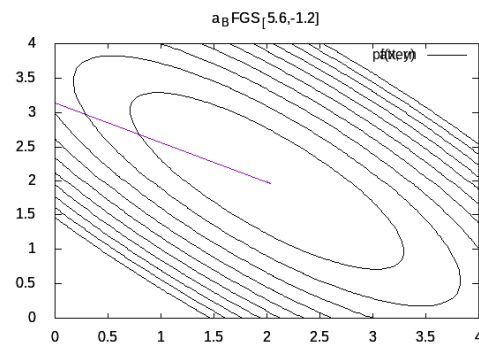Figure 6: $f(x, y) = (1.5 - x + xy)^2 + (2.25 - x + xy^2)^2 + (2.625 - x + xy^3)^2$
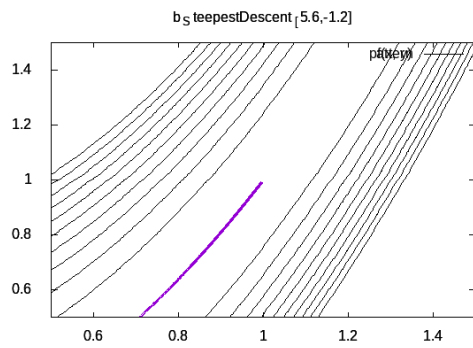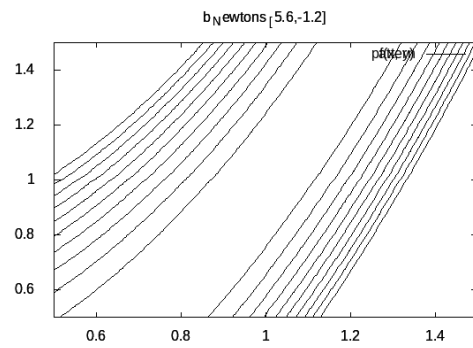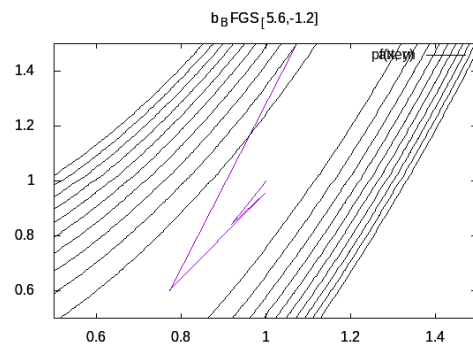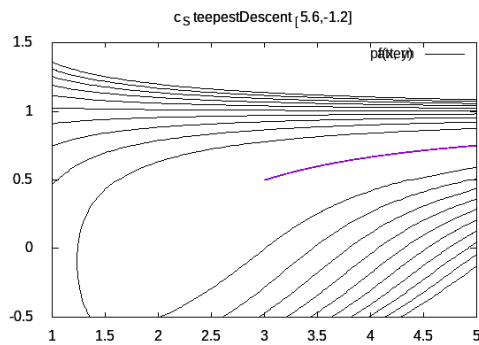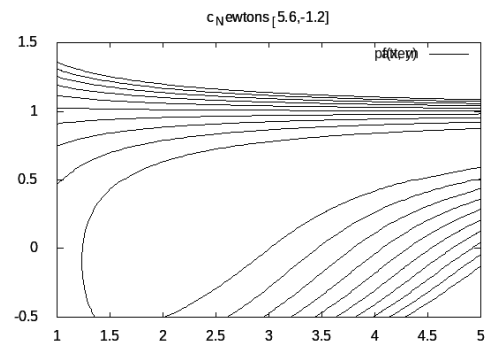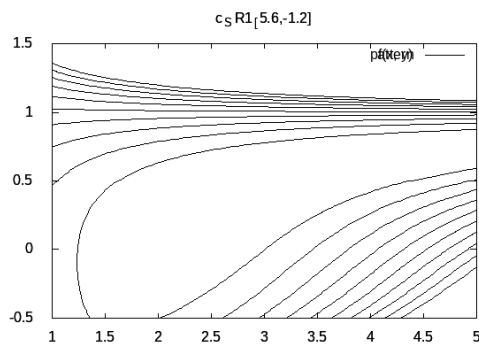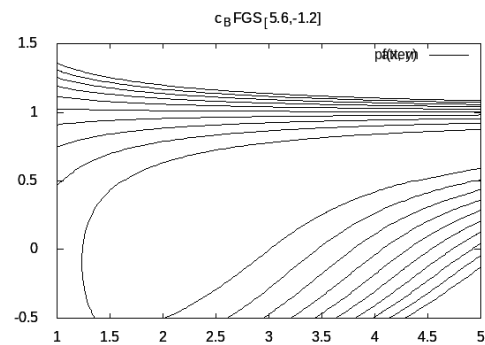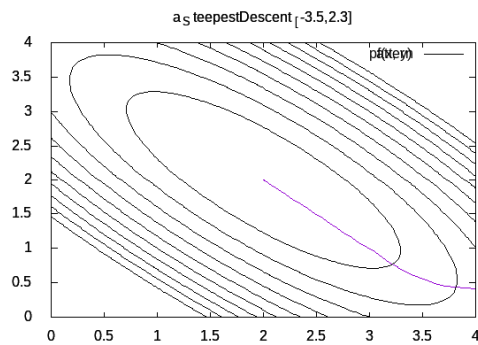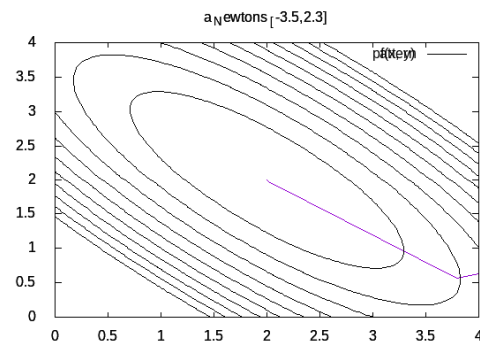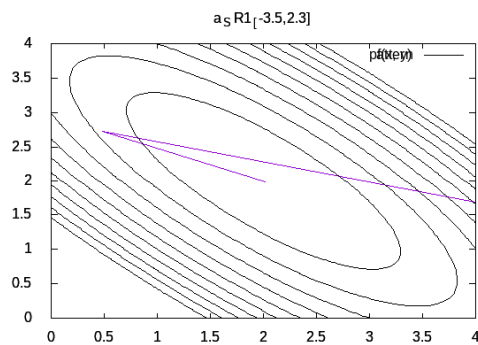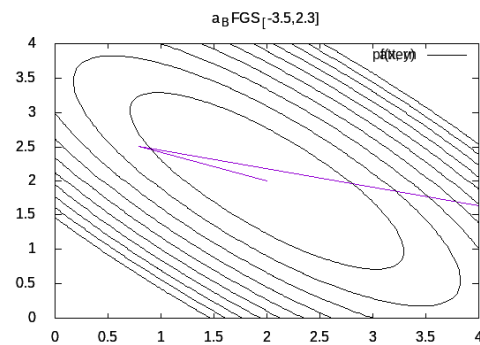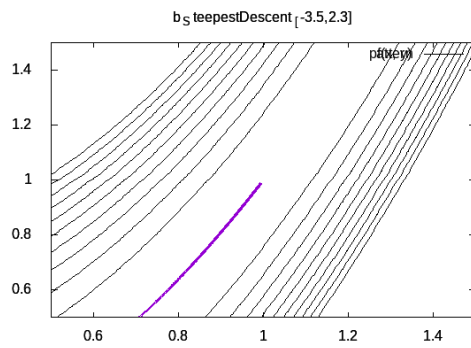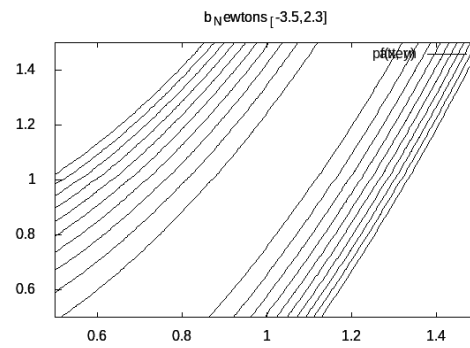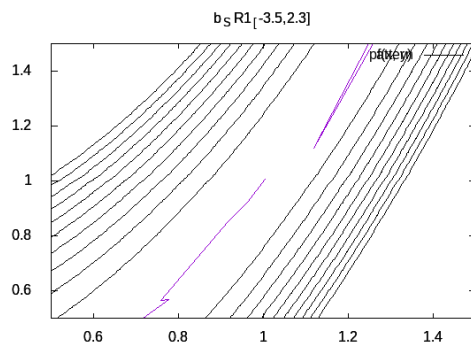
(a) SteepestDescent

(b) Newtons

(c) SR1

(d) BFGS

Figure 7: $f(x, y) = (x + 2y - 6)^2 + (2x + y - 6)^2$

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Homework 3

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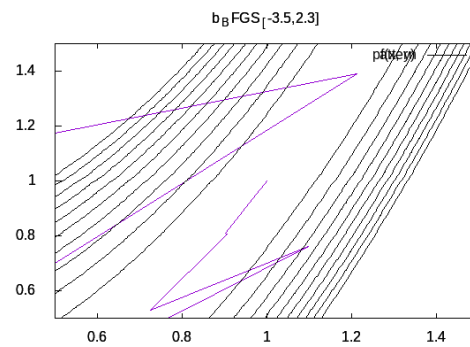Numerical Opimization

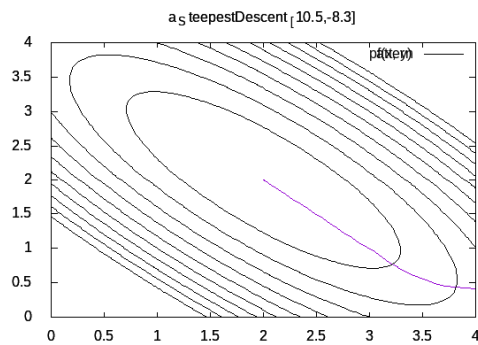October 30, 2021
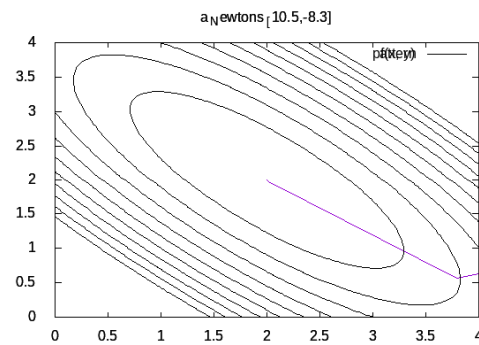
(a) SteepestDescent

(b) Newtons

(c) SR1

(d) BFGS

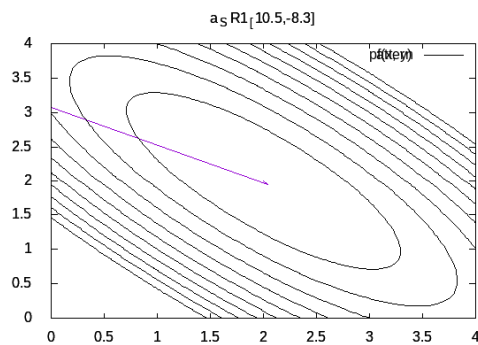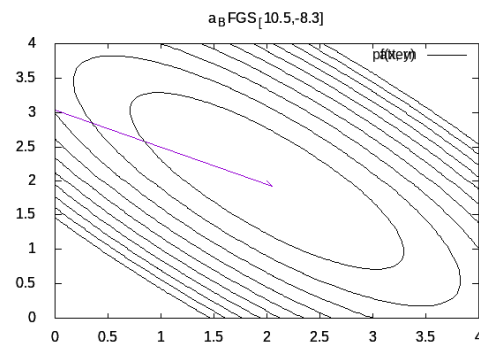Figure 8: $(x, y) = 50 * (y - x^2)^2 + (1 - x)^2$

Homework 3

(a) SteepestDescent

(b) Newtons

(c) SR1

(d) BFGS

Figure 9: $f(x, y) = (x + 2y - 6)^2 + (2x + y - 6)^2$