

## Math 10A Homework Assignment (10/20 – 10/25)

Assignment will be collected on 11/01 the next Tuesday during the class.

### Key notions introduced this week:

- (1) Velocity and tangent line;
- (2) Properties of derivatives;
- (3) Matrix operations, product of two matrices, chain rule;
- (4) Gradients and directional derivatives;
- (5) Fastest growth direction;
- (6) Normal vector and tangent plane of level surfaces.

### Homework problems:

§2.4. 7, 11, 15, 17.

§2.5. 1, 2(f), 3(b), 5(b), 9.

§2.6. 1, 3(b), 4(c), 6(c).