

Due date: \_\_\_\_\_

Name: \_\_\_\_\_

## Tools for the Definition of Limits

Notes

ex: Solve  $\left| \frac{4x+5}{3} - \frac{1}{2} \right| < \frac{7}{6}$ .

1. Solve the following inequalities.

a)  $|2x - 3| < 6$

b)  $|\sqrt{x-7} - 4| < 1$

c)  $\left| \frac{1}{x} - \frac{1}{4} \right| < 0.05$

**Practice at home**

2. Solve the following inequalities.

a)  $|3x + 1| < 2$

b)  $|\sqrt{x-2} - 3| < 1$

c)  $|x^3 - 8| < 0.001$

d)  $\left| \frac{5x+3}{2} - \frac{1}{3} \right| < \frac{2}{3}$

e)  $\left| \frac{2}{x} - \frac{1}{2} \right| < \frac{1}{5}$