

Penny Luczak

Calc 1 MTH-140

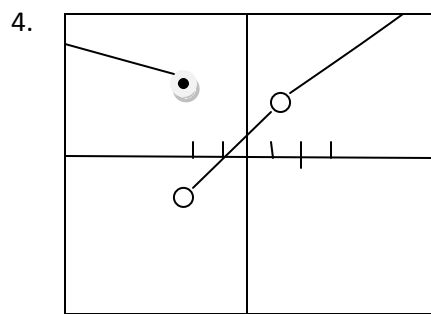
Test 1 review answers

1. Let $\delta = \frac{4}{3}\epsilon$

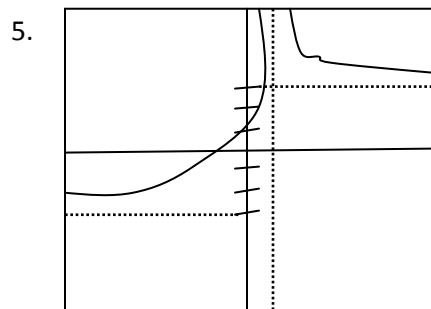
Proof: when $|x-4| < \frac{4}{3}\epsilon$ then $|\left(\frac{3}{4}x + 5\right) - 8| < \epsilon$

2. $f(x)$ not defined, therefore not continuous

3. Continuous



Answers may vary



6. Jump discontinuity at $x=0$

7. Removable discontinuity at $x=0$
Infinite discontinuity at $x=-4$

8. A. 0
b. $6x-4$

- c. $\frac{1}{4}$
- d. $-\frac{1}{4}$

9. A. $-\pi$
b. e
c. ∞
d. 0
e. $\frac{1}{3}$
f. $-\infty$
g. 3

10.A. False ex. $F(x) = \frac{1}{x^2+1}$

b. True: because they agree everywhere but zero

11. $F(x)$ must be positive at $(0, 2)$