Features of Functions

For each graph answer the following questions.

1. a) Discrete or Continuous?
(can trace WHOLETHING w/out lifting pencil)

Possible INPUTS (x values) b) Domain: $[-2, \infty)$

Possible OUTPUTS (y values) c) Range: $[3, \infty)$

HIGHEST value (output) (say WHEN) d) Maximum: None

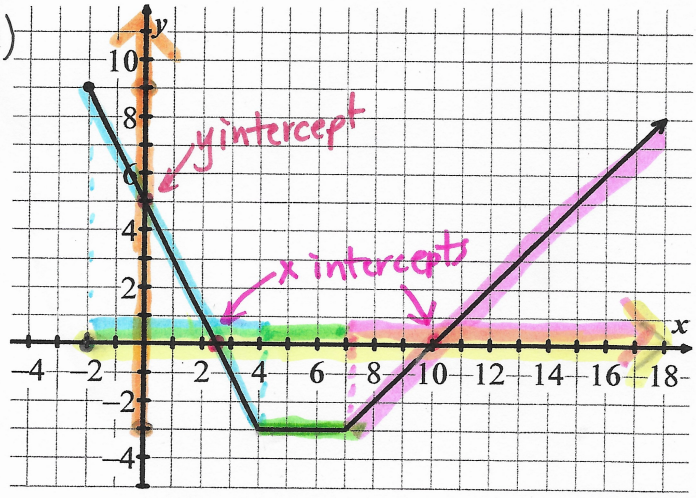
LOWEST value (output) (say WHEN) e) Minimum: -3 when $4 \le x \le 7$

POINTS where graph touches an axis f) Intercepts: y int: $(0,5)$
x int: $(2.5,0)$ & $(10,0)$

where outputs ↑ ↓ or → "where" means in terms of x! g) Interval(s) increasing: $(7, \infty)$

h) Interval(s) decreasing: $(-2,4)$

i) Interval(s) constant: $(4,7)$



2. a) Discrete or Continuous?
Discontinuous
(neither discrete or continuous on entire domain)

since it has discrete pieces must use SET notation b) Domain: $\{x \mid x = -5, -4, -3, \& x > -2\}$

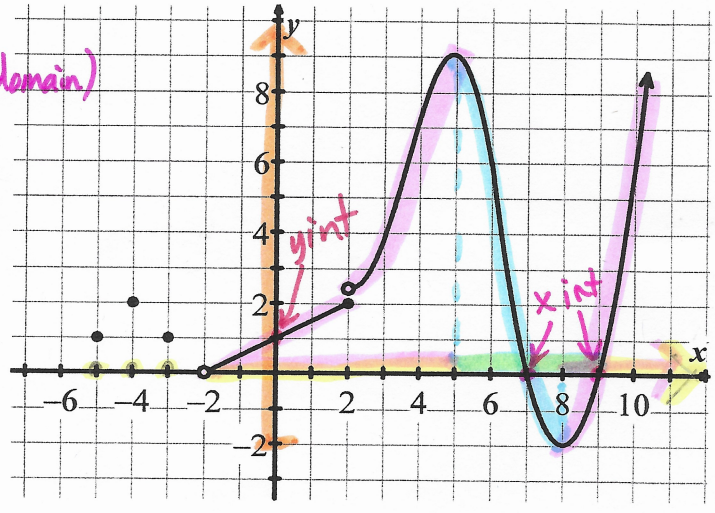
c) Range: $[-2, \infty)$

d) Maximum: None

e) Minimum: -2 @ $x = 8$

f) Intercepts: y int: $(0,1)$
x int: $(7,0)$ & $(9,0)$

g) Interval(s) increasing: $(-2,5) \cup (8, \infty)$
↑ "and"

h) Interval(s) decreasing: $(5,8)$

i) Interval(s) constant: None