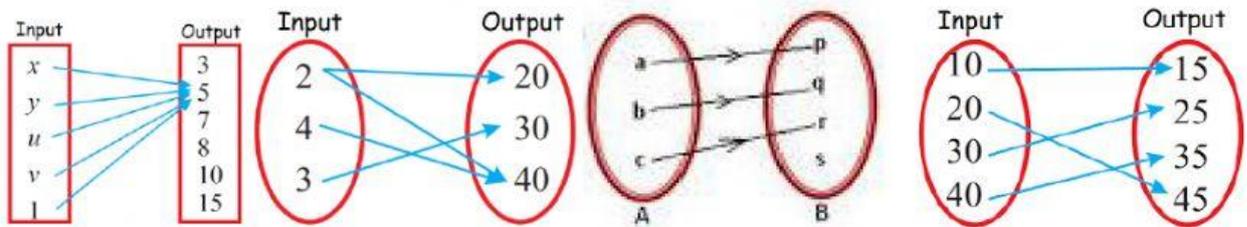


December Examination 2020

1. Identify the functions that are one to one. Respond yes or no

- a) $f(x) = x + 4$ b) $f(x) = 2x$ c) $f(x) = \frac{4}{x+7}$
- d) $f(x) = \frac{x+4}{x-3}$ e) $f(x) = -\frac{5}{x^2}$ f) $f(x) = x^4 - 1$
- g) $f(x) = (x-2)^2 + 1$ h) $f(x) = \sqrt{x}$ i) j) $f(x) = \sqrt{2x+3}$
- l) $f(x) = 5$ m) $f(x) = x^2 - 2x + 2$ n) $f(x) = 3x^2 - 6x + 1$

2. Drag and drop the correct type of function as indicated on the arrow diagrams



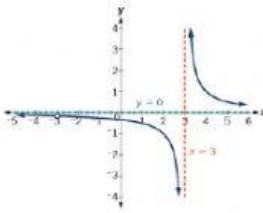
Surjective

General Function

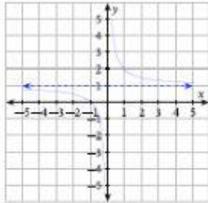
Bijjective

Injective

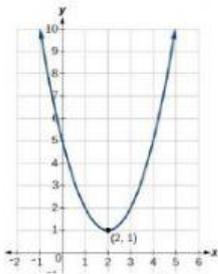
3. Match each graph to its possible function.



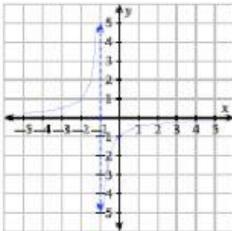
$$g(x) = (x - 2)^2 + 1$$



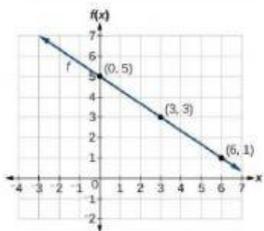
$$h(x) = -\frac{7}{x}$$



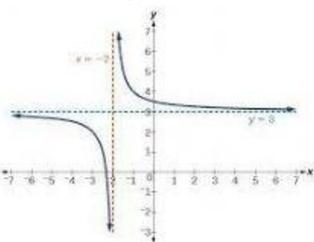
$$3y = 15 - 2x$$



$$y = \frac{3}{x-3}$$



$$y = \frac{3}{x+2} + 3$$



$$p(x) = \frac{5}{x} + 1$$