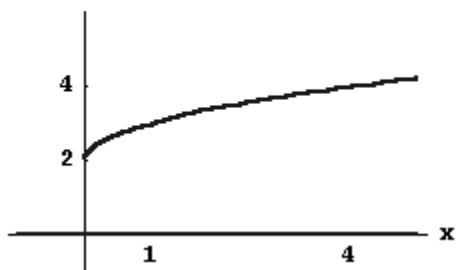Topic 22: Graph transformations of basic shapes

Use transformations of the basic graphs to sketch the graph of each function. Label all asymptotes and intercepts.

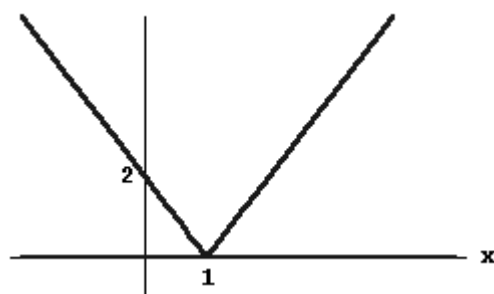1. $f(x)=\sqrt{x}+2$ 2. $f(x)=2|x-1|$ 3. $f(x)=\dfrac{1}{x+2}-1$ 4. $f(x)=-x^3+1$
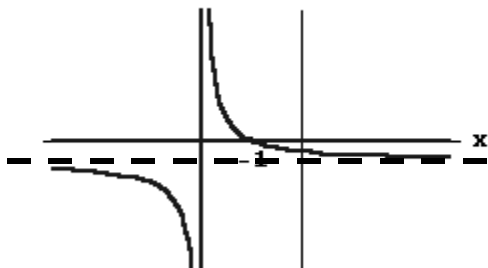
Answers

1. $f(x)=\sqrt{x}+2$

2. $f(x)=2|x-1|$

3. $f(x)=\dfrac{1}{x+2}-1$

Vertical Asymptote: x=-2
Horizontal Asymptote: y = -1
x-intercept: -1
y-intercept: -1/2

$f(x)=-x^3+1$