

For the function: $f(x) = \frac{1}{2}x^2 - 8x$

a. Sketch the function

b. State the type of function

c. Identify on the sketch and state the y-intercept here: (____, ____)

d. Identify on the sketch and state here any vertex or local max / mins

(____, ____); (____, ____); ...

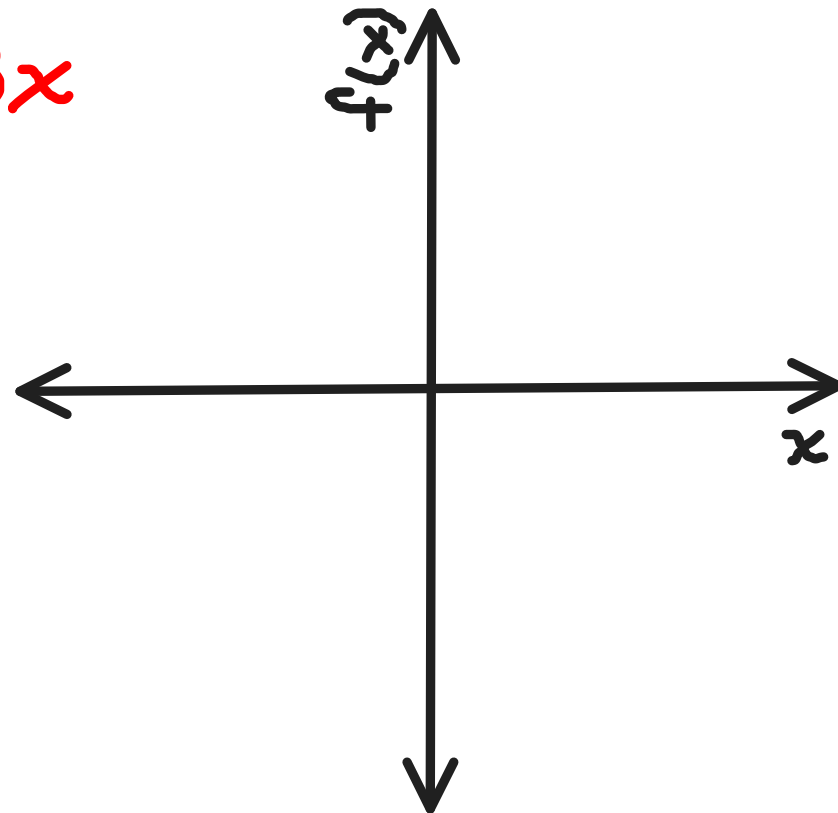
e. Identify the zeros (aka: roots, x-intercepts)

(____, ____); (____, ____); ...

f. State the domain and range:

Domain: { _____ < x < _____ }

Range: { _____ < f(x) < _____ }



g. Indicate 'end behaviour' of the function

$x \rightarrow \infty, y \rightarrow \underline{\hspace{2cm}}$

$x \rightarrow -\infty, y \rightarrow \underline{\hspace{2cm}}$

h. discuss any symmetry

For the function: $g(x) = x^3 - 5x$

a. Sketch the function

b. State the type of function

c. Identify on the sketch and state the y-intercept here: (____, ____)

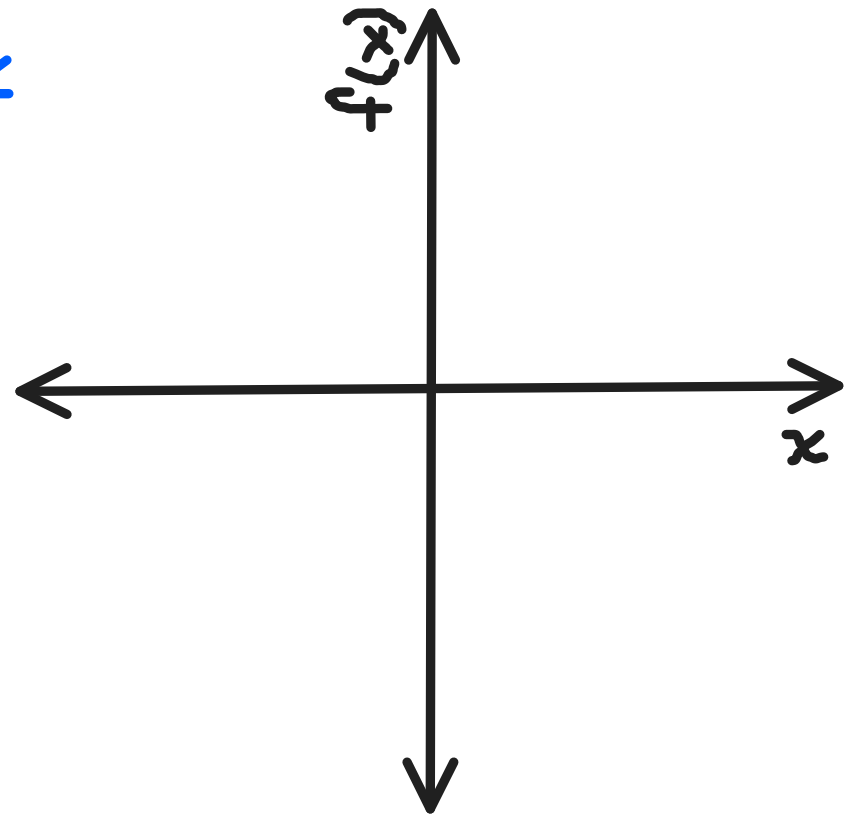
d. Identify on the sketch and state here any vertex or local max / mins (____, ____); (____, ____); ...

e. Identify the zeros (aka: roots, x-intercepts) (____, ____); (____, ____); ...

f. State the domain and range:

Domain: { _____ < x < _____ }

Range: { _____ < f(x) < _____ }



g. Indicate 'end behaviour' of the function

$x \rightarrow \infty, y \rightarrow \underline{\hspace{2cm}}$

$x \rightarrow -\infty, y \rightarrow \underline{\hspace{2cm}}$

h. discuss any symmetry