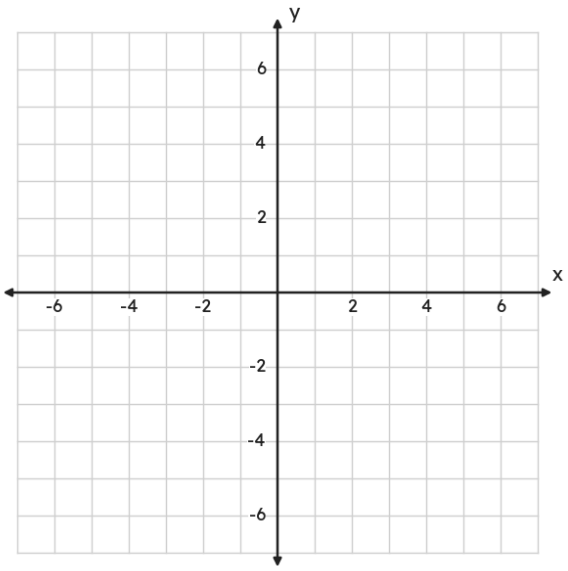
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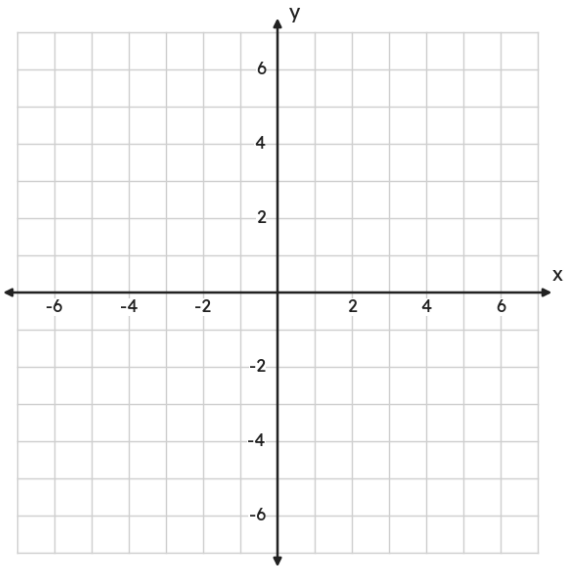
Graphs Rational Functions - Medium

Graph each function. Draw the asymptotes as dashed lines, then give the asymptotes, the domain, and the range.

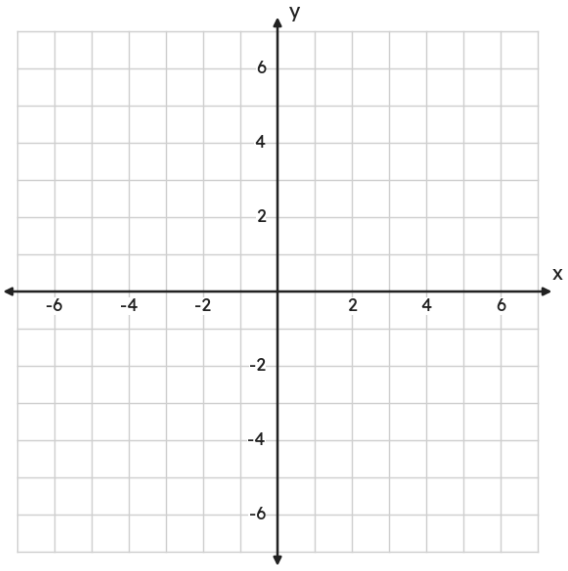
1. Graph f(x) = (4x + 2)/x.



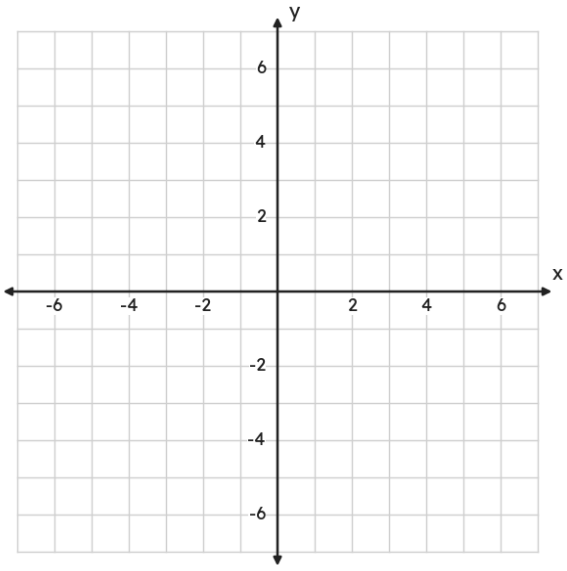
2. Graph f(x) = 1/(x + 3) - 1.



3. Graph f(x) = (-x + 4)/(x - 1).



4. Graph f(x) = 3/(x - 3).

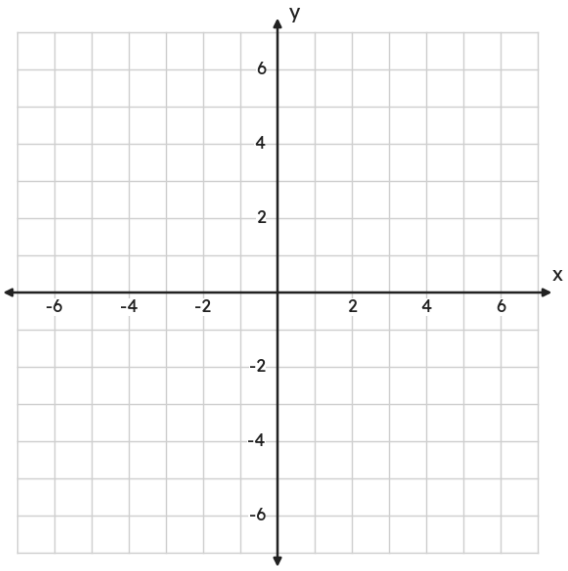


Name: _____ Date: _____

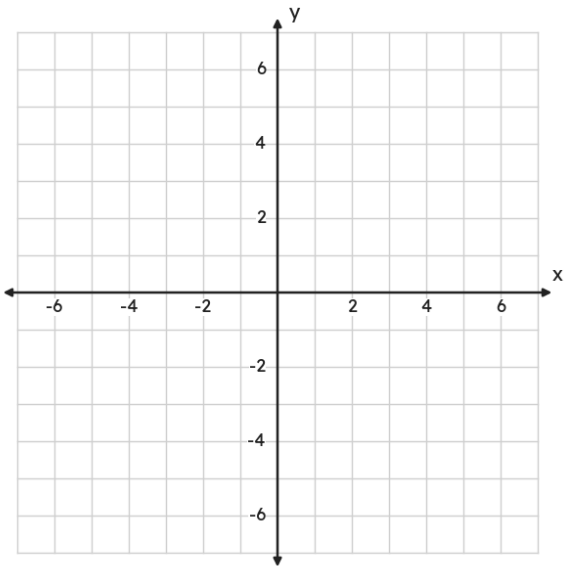
Graphs Rational Functions - Medium

Graph each function. Draw the asymptotes as dashed lines, then give the asymptotes, the domain, and the range.

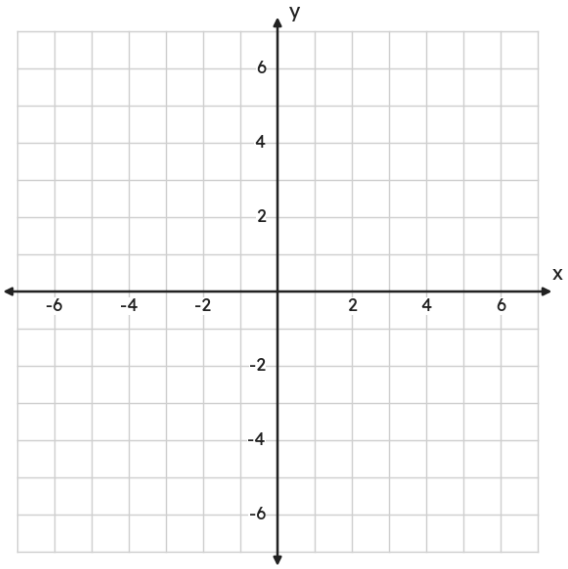
5. Graph f(x) = (-3x - 11)/(x + 4).



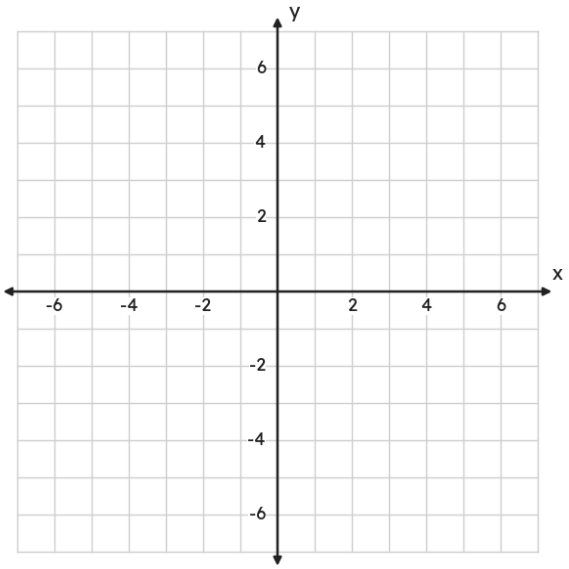
6. Graph f(x) = 1/(x - 1).



7. Graph f(x) = 4/(x - 2).

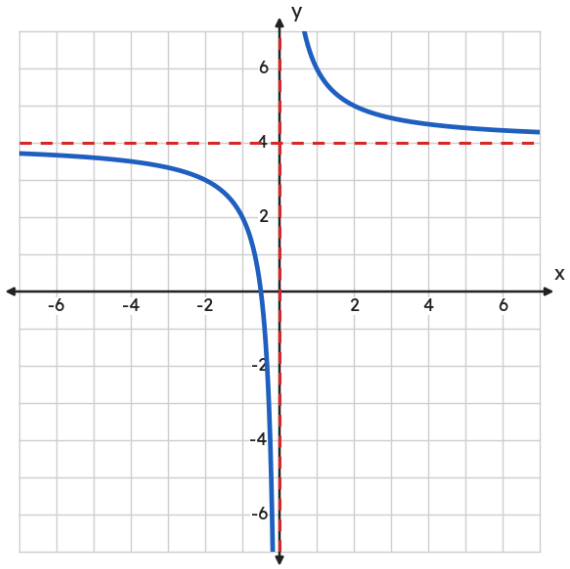


8. Graph f(x) = (4x - 1)/(x - 1).



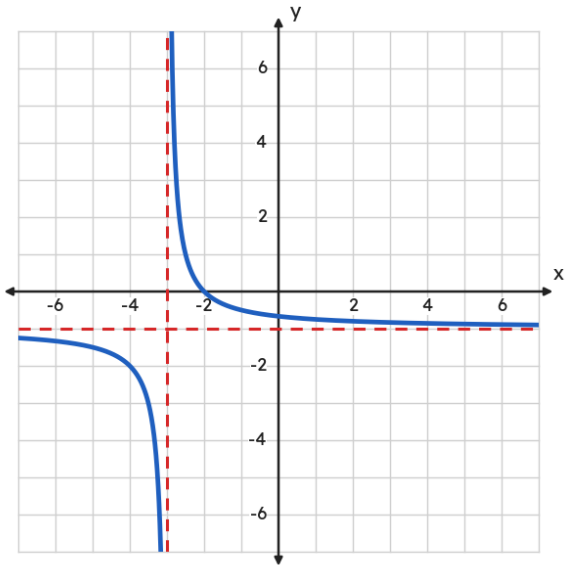
Graphs Rational Functions - Medium - Answer Key

1. Graph f(x) = (4x + 2)/x.



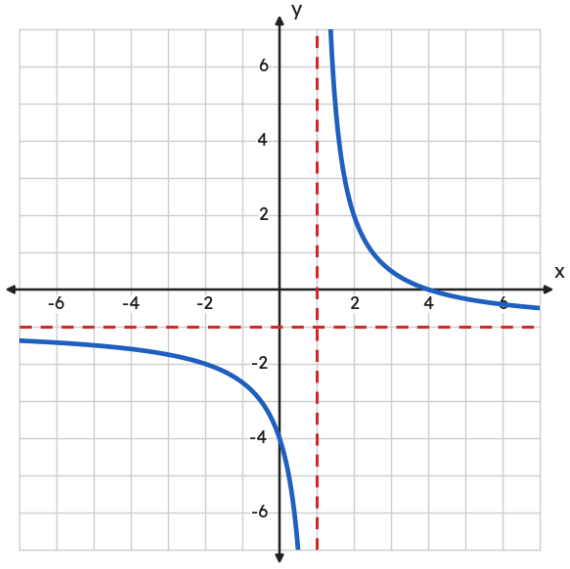
VA x = 0, HA y = 4; domain: all reals except 0; range: all reals except 4

2. Graph f(x) = 1/(x + 3) - 1.



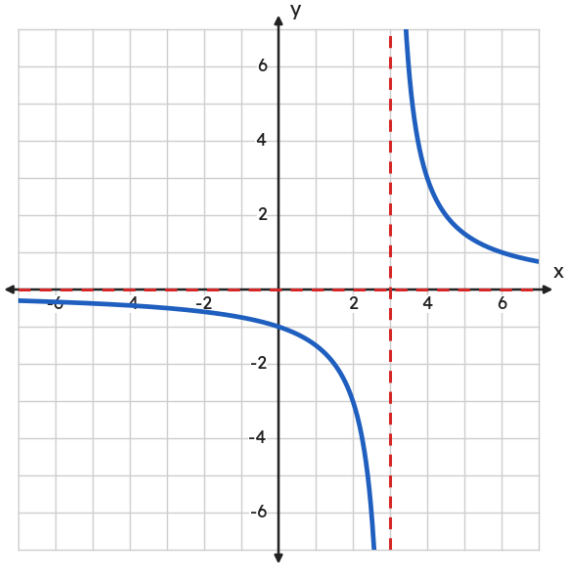
VA x = -3, HA y = -1; domain: all reals except -3; range: all reals except -1

3. Graph f(x) = (-x + 4)/(x - 1).



VA x = 1, HA y = -1; domain: all reals except 1; range: all reals except -1

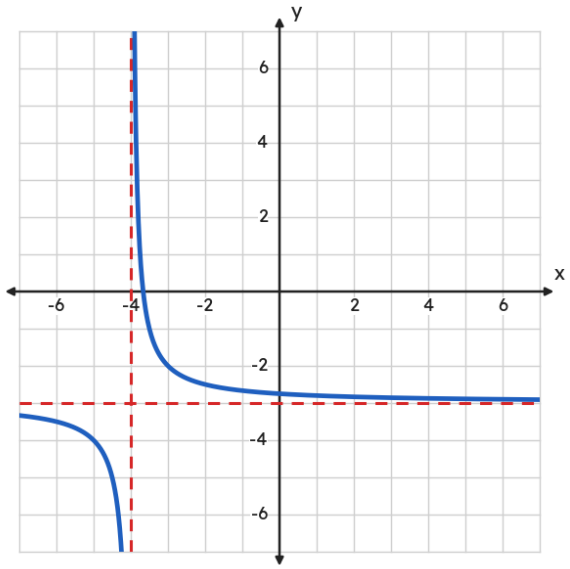
4. Graph f(x) = 3/(x - 3).



VA x = 3, HA y = 0; domain: all reals except 3; range: all reals except 0

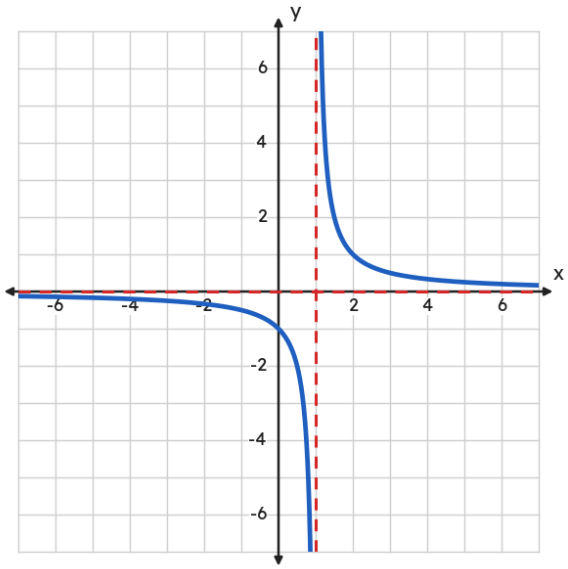
Graphs Rational Functions - Medium - Answer Key

5. Graph f(x) = (-3x - 11)/(x + 4).



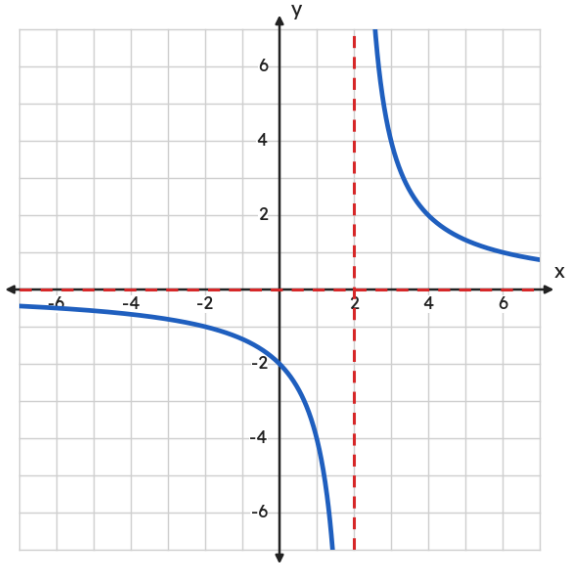
VA x = -4, HA y = -3; domain: all reals except -4; range: all reals except -3

6. Graph f(x) = 1/(x - 1).



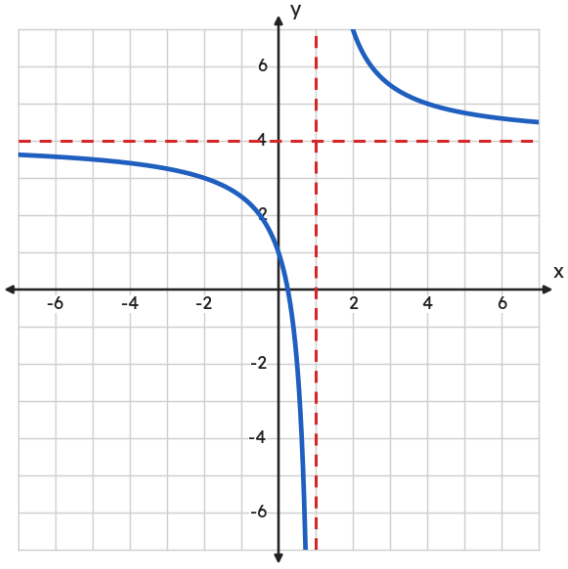
VA x = 1, HA y = 0; domain: all reals except 1; range: all reals except 0

7. Graph f(x) = 4/(x - 2).



VA x = 2, HA y = 0; domain: all reals except 2; range: all reals except 0

8. Graph f(x) = (4x - 1)/(x - 1).



VA x = 1, HA y = 4; domain: all reals except 1; range: all reals except 4