Secondary II Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Homework 2-2 Piecewise Class Period:\_\_\_\_\_\_\_\_\_

1-4: Graph the piecewise function.

1. $f\left(x\right)=\left\{\begin{array}{c}x, if-3\leq x<1\\2x-5, if 1\leq x<6\end{array}\right.$ 2. $f\left(x\right)=\left\{\begin{array}{c}x+6, if x\leq -3\\3x+4, if-3<x<1 \end{array}\right.$



3. $f\left(x\right)=\left\{\begin{array}{c}\frac{1}{2}x, if-6<x\leq -2\\4, if-2<x<3\\-5x+10, if x\geq 3 \end{array}\right.$ 4. $f\left(x\right)=\left\{\begin{array}{c}6, if-5<x<0\\x+3, if 0\leq x\leq 4\\-4, if x>4\end{array}\right.$



5. The graph shows the motion of a train car on a train track. Use the graph to answer the questions.

* 1. What is happening at time = 40s?

Distance (m)

Time (s)

120

20

40

60

80

100

120

350

50

100

150

200

250

300

0

30

70

110

25

125

225

325

50

0

175

10

75

90

275

* 1. What is happening from time = 0s until time = 40s? What is the slope of this line? Show your work.
	2. What is happening from time = 40s until time = 90s? What is the slope of this line? Show your work.
	3. What is happening from time = 90s until time = 120s? What is the slope of this line? Show your work.
	4. Write an equation for this graph. Be sure to include the domain.