

1. Ryan's part time job pays him \$8/h. a) Create a table showing the relationship between hours worked (h), beginning at 0, and total wages (W). b) Write an equation comparing W to h. c) How much will Ryan earn after working 12 hours? d) How many hours must Ryan work to earn \$172?

a)

h	W
0	0
1	8
2	16
3	24
4	32
5	40
6	48

b) $W = 0 + 8(h)$

c) $W = 0 + 8(12)$
 $= 96$

d) $W = 8(h)$
 $\frac{172}{8} = \frac{8h}{8}$ $h = 21.5$

2. Describe the following using an equation.

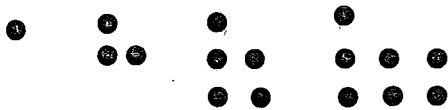
a) An amusement park charges a \$3 entrance fee plus \$0.50/ride

$$C = 3 + 0.5(r)$$

b) The Perimeter of a square with side length x

$$P = 4(x)$$

c) The number of dots in each of the figures below



F	# dots
0	1
1	3
2	6
3	10

$$D = \text{starting \#} + r/c \times F$$

$$= 1 + 2 \times F$$

3. This table shows the details of a phone plan. With this pattern, a) Write an equation comparing C to T. b) what is the cost for 120 minutes of calls, and c) how many minutes can be purchased for \$75?

Time (min)	0	5	10	15
Cost (\$)	15	17	19	21

Rate of change = $\frac{2}{5}$
 increase in fee / increase in min.

a) $C = 15 + \frac{2}{5}(T)$

b) $C = 15 + \frac{2}{5}(120)$
 $= \$63$

c) $C = 15 + \frac{2}{5}(T)$
 $-15 \quad 75 = 15 + \frac{2}{5}(T) - 15$

$$\frac{60}{\frac{2}{5}} = \frac{\frac{2}{5}(T)}{\frac{2}{5}} \quad T = 150$$