**Graphing a Line Given Slope** Name

**and Y-Intercept**

The dental insurance plan will cost you a flat rate of $140 for the year, plus a co-payment of $20 whenever you have to see the dentist.

x

y

1. Graph the relationship on the grid

b. What is the slope of the line? What does it represent in this situation?

1. What is the y−intercept? How is the y−intercept represented in this situation?
2. Write a linear equation to represent this information.
3. If you budget $500 for your dental cost, how many times can you see the dentist ?

Graph each of the equations written in standard form..

1. 2x + 3y = 6 2. 5x − 2y = 10





3. x − 4y = 8 4. 3x + 4y = 12





**Linear Equations**

Write the equation of the line and then graph it.

../grid.3.new.pict

1. Passes through (–4, 2), slope of –one third

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2. Passes through (–6, –8) (–3, 2)

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3. No slope, passes through (–1, 2)

../grid.3.new.pict4. Zero slope, passes through (4, –3)

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5. Passes through (6, 7) (–2, 7)

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6. Passes through (–3, 4) (–3, –5)

Blood pressure tends to increase with age. Suppose the normal blood pressure of a 20 year old is 120 and that of a 50 year old is 135. Write the equation of the line.

1. Identify two points on the line that represents this situation.
2. Identify the slope. What does it represent in this situation?
3. Write the equation of the line.
4. Identify the y−intercept. What does it represent in this situation?
5. What is the blood pressure of a 30 year old?
6. How old is a person with blood pressure of 140?