

# Investment Expert

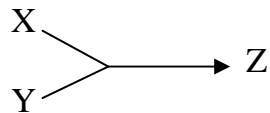
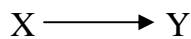
As a long-time investment expert, you have come to firmly believe in the following rules:

1. If a person is age thirty-five or younger, and is married, then he or she should invest in securities.
2. If a person has less than \$20,000 to invest and is looking for long-term return, then he or she should invest in multiple stocks.
3. If a person wants to invest in growth stocks or has an annual income of at least \$50,000, then he or she should invest in Macrosoft stock.
4. If a person seeks long-term return, and wants to invest in multiple stocks, then he or she should invest in growth stocks.
5. If a person has less than \$20,000 to invest and wants to invest in securities, or if he or she has an annual income of at least \$50,000, then he or she should invest in growth stocks.
6. If a person is married, then he or she should look for long-term return.

A. Identify all the underlying conditions/actions and give each a short name. For example:

- $A$  = Person's Age is 35 or less
- $M$  = Person is Married
- $S$  = Invest in Securities

B. Translate each of the given 6 rules into a graphic formula using the above abbreviated names and arrows. Show "If X, then Y" and "If X and Y, then Z", respectively, as:



C. Integrate the above graphic fragments into a single diagram showing all the conditions/actions and all the rules. It may take several trials to create a neat, elegant diagram. If the diagram becomes too messy and unreadable, rearrange the items to eliminate crossed lines. Use the drawing toolbar (Insert/Shapes) in MS-Word to draw the arrows.

D. An investor approaches you to seek advice on investing in Macrosoft stock. She is married and has \$15,000 to invest. Use the above diagram to figure out what advice you would offer her. Clearly explain your thinking process.