

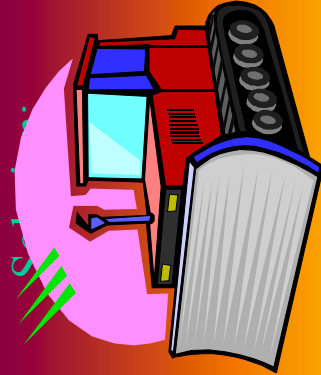
# Break-even Analysis



Break-even analysis involves determination of the value of a variable that renders the decision between two alternatives indifferent

Economic equations usually written in terms of AW

Example: A contractor is considering whether he should buy or rent another bulldozer. The one he is considering will cost \$50,000 with a maintenance cost of \$15,000/yr and an operating cost of \$40 per day. Its salvage value will be \$22,000 if sold after the 5 year study period. If rented on a daily basis, the cost will be \$250 per day. At an interest rate of 10%/yr, determine the number of days per year the equipment must be needed for breakeven.



$$-250x = -50,000(A/P, 10\%, 5) - 15,000 + 22,000(A/F, 10\%, 5) - 40x$$

$$-210x = -24,586$$

$$x = 117 \text{ days / yr}$$

