

**Problems For You To Do (Section 4.2)**

1. In a random sample of college students, 120 smoked cigarettes and 630 did not. From this sample estimate the probability that a college student smokes.

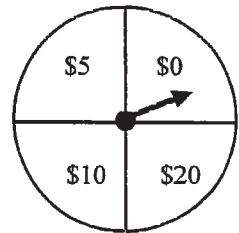
2. One card is drawn from a well-shuffled deck of 52 cards. Use the graphical display of the sample space to find the probability of getting

- a) a red card
- b) a jack
- c) a card that is not a jack
- d) a red card and a jack (a red jack)
- e) a red card or a jack

	Club	Diamond	Heart	Spade
K	♣	♦	♥	♠
Q	♣	♦	♥	♠
J	♣	♦	♥	♠
10	♣	♦	♥	♠
9	♣	♦	♥	♠
8	♣	♦	♥	♠
7	♣	♦	♥	♠
6	♣	♦	♥	♠
5	♣	♦	♥	♠
4	♣	♦	♥	♠
3	♣	♦	♥	♠
2	♣	♦	♥	♠
A	♣	♦	♥	♠
	Black	Red	Red	Black

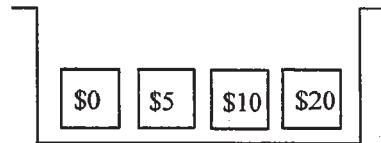
3. The pointer is spun twice.

- a) Use a table to construct a sample space of 16 equally likely simple events.
- b) Find the probability that
  - i) you win a total of \$10.
  - ii) the same number comes up on each spin.



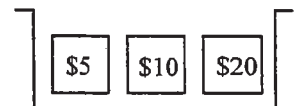
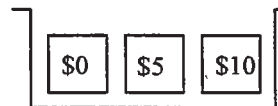
4. Two bills are selected from the pot without replacement.

- a) Use a table to construct a sample space of 12 equally likely simple events.
- b) Find the probability that
  - i) you win a total of \$10.
  - ii) the second bill selected is the \$20.



5. One bill is randomly selected from Pot A and one from Pot B.

- a) Use a table to construct a sample space. Use a tree diagram to construct a sample space. Which is easier?



Pot A

Pot B

- b) What is the probability that the sum of the two bills is \$10?