

Section 4.2 Problems

1. $P(\text{Smokes}) = \frac{120}{120 + 630} = \frac{120}{750} = \frac{4}{25} = 0.16$

2. a) $P(\text{Red}) = 26/52 = 1/2$

c) $P(\text{Jack}) = 48/52 = 12/13$

e) $P(\text{R or J}) = 28/52 = 7/13$

b) $P(\text{Jack}) = 4/52 = 1/13$

d) $P(\text{Red Jack}) = 2/52 = 1/26$

3. a)

		Second Spin			
		0	5	10	20
First Spin	0	(0,0)	(0,5)	(0,10)	(0,20)
	5	(5,0)	(5,5)	(5,10)	(5,20)
	10	(10,0)	(10,5)	(10,10)	(10,20)
	20	(20,0)	(20,5)	(20,10)	(20,20)

b) (i) $P(T = 10) = 3/16$

(ii) $P(\text{Same}) = 4/16 = 1/4$

4. a)

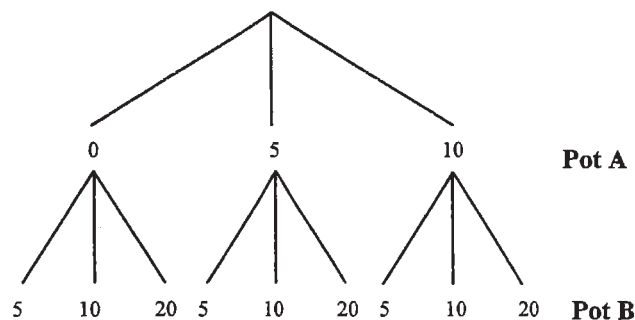
		Second Bill			
		0	5	10	20
First Bill	0	-	(0,5)	(0,10)	(0,20)
	5	(5,0)	-	(5,10)	(5,20)
	10	(10,0)	(10,5)	-	(10,20)
	20	(20,0)	(20,5)	(20,10)	-

b) (i) $P(T = 10) = 2/12 = 1/6$

(ii) $P(\text{Second} = 20) = 3/12 = 1/4$

5. a)

		Pot B		
		5	10	20
Pot A	0	(0,5)	(0,10)	(0,20)
	5	(5,5)	(5,10)	(5,20)
	10	(10,5)	(10,10)	(10,20)



b) $P(\text{Sum} = 10) = 2/9$