Name:_____

An unfair die has the following probability distribution:

Outcome	Probability
1	0.3
2	0.25
3	0.2
4	0.1
5	0.1
6	0.05

Find the probability that a roll is:

a) even

Pr(roll is 2) + Pr(roll is 4) + Pr(roll is 6)

= 0.25 + 0.1 + 0.05

= 0.4

b) less than or equal to 3

Pr(roll is 1) + Pr(roll is 2) + Pr(roll is 3)

= 0.3 + 0.25 + 0.2

= 0.75

c) less than 3

Pr(roll is 1) + Pr(roll is 2)

= 0.3 + 0.25

= 0.55

d) not equal to 3

1 − Pr(roll is 3)

= 1 − 0.2

= 0.8

Alternatively:

0.3 + 0.25 + 0.1 + 0.1 + 0.05

= 0.8