Gamble (coin toss)

If Head, A pays $10 to B.

If Tail, B pays $10 to A.

Head Tail

Expected payoff of A = (0.5) (-10) + (0.5) (10) = 0 (Fair game)

Expected payoff of B = (0.5) (10) + (0.5) (-10) = 0 (Fair game)

Speculation

If temperature (T) in 10 day is higher than 25 degrees, A pays $10 to B

If temperature (T) in 10 day is lower than 25 degrees, B pays $10 to A

T > 25 T < 25

Expected payoff of A = P(T > 25) (-10) + P(T < 25) (10)

Expected payoff of B = P(T > 25) (10) + P(T < 25) (-10)

If A believes that P(T < 25) > 0.5 and B believes P(T < 25) < 0.5 (i.e., heterogeneous expectation), they play this speculative game because both A and B believe that they have a positive expected payoff.