University of Texas at Austin

Quiz #13

Spreads. Straddles. Strangles.

Please, provide your *final answer only* to the following problems.

Problem 13.1. (5 points) An investor buys an \$850-strike, two-year straddle on gold. The price of gold two years from now is modeled using the following distribution:

\$800, with probability 0.35,
\$850, with probability 0.4,
\$925, with probability 0.25.

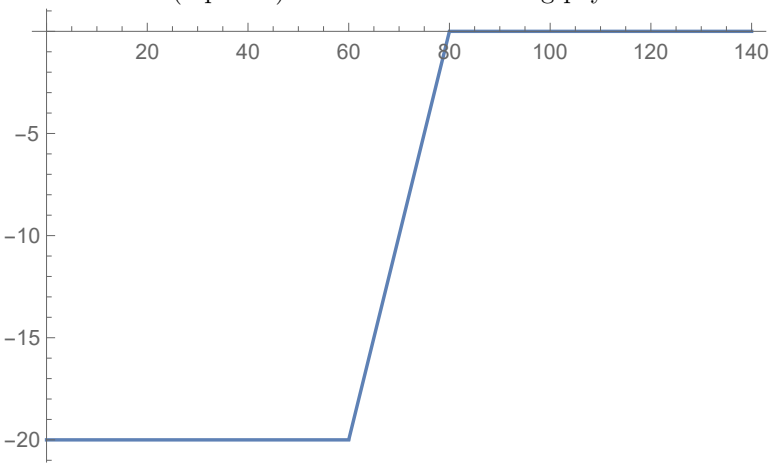
What is the investor's expected payoff?

(a) About \$11.25
(b) About \$23.00
(c) About \$23.75
(d) About \$36.25
(e) None of the above.

Solution: (d)

$$50 \times 0.35 + 75 \times 0.25 = 36.25$$

Problem 13.2. (5 points) Consider the following payoff curve:

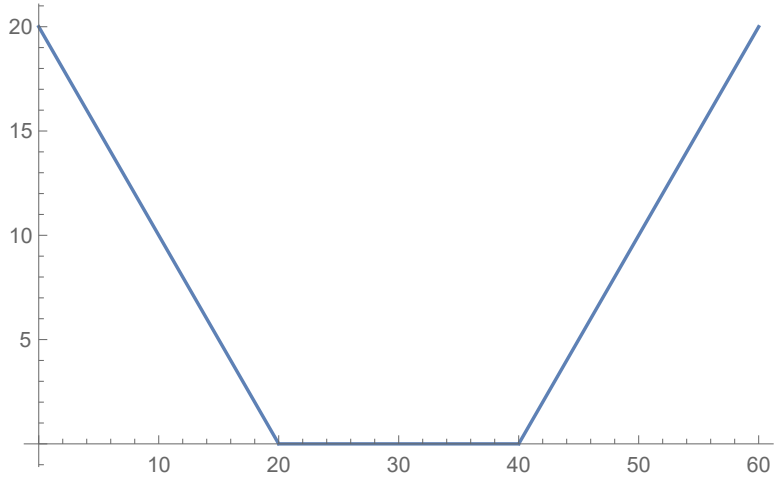


Which of the following positions has the above payoff curve?

(a) A put bull spread.
(b) A call bull spread.
(c) A put bear spread.
(d) A call bear spread.
(e) None of the above.

Solution: (a)

Problem 13.3. (5 points) Consider the following payoff curve:



Which of the following positions has the above payoff curve?

(a) A straddle.
(b) A strangle.
(c) A bull spread.
(d) A bear spread.
(e) None of the above.

Solution: (b)