# Official Final Grade Contracts

### Α

An insurance that protects you against the event that your score is < 60.

- Price: 5 Points
- How it works: Let g be your score before adjustment and g' be your score after adjustment, then

$$g' = \begin{cases} 60 & \text{if } g \le 65\\ g - 5 & \text{if } g \ge 66 \end{cases}$$

## В

An option that gives you the *right* to buy product A on or before expiration time.

- Price: 2 Point
- Expiration time: see announcement
- How it works: After you purchase this option, you have the right to buy product A any time before the expiration time. If you exercise your right to buy product A, your final payoff would be

$$g' = \begin{cases} 58 & \text{if } g \le 65\\ g - 7 & \text{if } g \ge 66 \end{cases}$$

If you do not buy product A, your payoff is g' = g - 2.

## C

An insurance that protects you against the event that your score is < 70.

• Price: 10 Points

• How it works:

$$g' = \begin{cases} 70 & \text{if } g \le 80\\ g - 10 & \text{if } g \ge 81 \end{cases}$$

## D

An option that gives you the *right* to buy product C on or before expiration time.

• Price: 4 Points

• Expiration time: See announcement

• How it works: If you exericse your right to buy product C, your final payoff would be

$$g' = \begin{cases} 66 & \text{if } g \le 80\\ g - 14 & \text{if } g \ge 81 \end{cases}$$

If you do not buy product C, your payoff is g' = g - 4

# Ε

An investment contract gives you 30 points in return for 40% of your score<sup>1</sup>.

• How it works:

$$g' = 0.6 \times g + 30$$

 $<sup>^1</sup>$  This contract is akin to an equity investment, such as a stock. I offer to invest a certain amount (30 points) in you in exchange for a percentage (40%) of your return. If your exam score is 100, for example, then you will pay 40 and receive 30, so your score will be 90 after adjustment. If your exam score is 50, it will be 60 after adjustment.

### F

A betting contract on whether the class average exam score is  $\geq$  75.

- Your position: The class average score is  $\geq 75$
- Amount bet: 5 Points
- How it works: Let  $\bar{G}$  be the class average, then

$$g' = \begin{cases} g - 5 & \text{if } \bar{G} < 75\\ g + 5 & \text{if } \bar{G} \ge 75 \end{cases}$$

## G

A betting contract on whether the class average exam score is < 75.

- $\bullet$  Your position: The class average score is < 75
- Amount bet: 5 Points
- How it works:

$$g' = \begin{cases} g+5 & \text{if } \bar{G} < 75\\ g-5 & \text{if } \bar{G} \ge 75 \end{cases}$$