

## Question 1

You have reached the bonus round in a TV gameshow. Which of the following gambles should you choose, if you wish the on average biggest payoff?

- A. Flip a coin: win 100 kr., if heads; nothing, if tails.
- B. Draw a card (from a pack of 52): win 300 kr., if hearts; nothing, if not.
- C. Flip two coins: win 300 kr., if different faces; nothing, if same face.
- D. Spin a wheel of fortune (numbers 1-13): win 1000 kr., if a number chosen by you; nothing, if any other.
- E. Throw a six-sided dice: win 700 kr., if six; nothing, if anything else.

## Question 3

Two buses stop outside a man's house. One bus goes to Fakta, and the other to Netto. Both buses depart every twelfth minutes, and both buses are always on time. The man goes shopping at a random time every day, and always chooses the first available bus. Which scenario cannot be true over time?

- A. He shops 11 times as often in Netto as in Fakta.
- B. He shops 3 times as often in Fakta as in Netto.
- C. He shops equally often in Fakta and Netto.
- D. He shops 4 times as often in Fakta as in Netto.
- E. He shops 5 times as often in Netto as in Fakta.

## Question 2

A lecturer requires their student to turn in their assignment in the lecturer's pigeonhole in the mailroom before 16:00. In which scenario is the student justified in feeling cheated by the lecturer?

- A. The student cannot complete the assignment.
- B. Upon arriving at the mailroom at 15:30, the door is locked.
- C. The lecturer does not have a pigeonhole in the mailroom.
- D. The assignment does not fit within the pigeonhole.
- E. None of the above.

## Question 4

Kiwis are worse than apples. Melons are better than both kiwis and pineapples. Bananas are worse than apples. Pineapples are worse than bananas. Which fruit is superior?

- A. Kiwi.
- B. Apple.
- C. Pineapple.
- D. Melon.
- E. Banana.
- F. It cannot be decided from the above.

### Question 5

A woman enters a bakery, where there are two cashiers with one queue each. As she enters, two customers leave each their cashier, and there are now 11 people in front of her. She joins the shortest queue. Every transaction takes either 1 or 2 minutes. What is the most time the woman could have saved, if the bakery had a single queue for all customers?

- A. 1 minute.
- B. 2 minutes.
- C. 3 minutes.
- D. 4 minutes.
- E. 5 minutes.
- F. It would not make a difference.

### Question 7

A man buys 100 flagstones for his garden. Including freight at 5 kr. per flagstone, and 25% tax, the total comes to 3125 kr. Later, he buys 1000 flagstones for his company. He gets a 10% discount (though not on freight), and does not have to pay tax. What is the total?

- A. 15000 kr.
- B. 18000 kr.
- C. 21000 kr.
- D. 23000 kr.
- E. 35000 kr.

### Question 6

The colour of a pixel on a computer monitor is determined by the RGB-value, weighting the colours Red, Green, and Blue from 0 to 255. (0, 0, 0) is black, (255, 255, 255) is white, and yellow is (255, 255, 128). Which combination yields pink?

- A. (128, 128, 0)
- B. (255, 128, 128)
- C. (255, 128, 64)
- D. (128, 255, 128)

### Question 8

10 couples and 10 singles arrive at a party. All shake hands, except guests married to each other. How many hand shakes in total?

- A. 110
- B. 275
- C. 425.
- D. 860.
- E. 900.

## Answers

	A	B	C	D	E	F
Question 1						
Question 2						
Question 3						
Question 4						
Question 5						
Question 6						
Question 7						
Question 8						

You may select as many answers per question as you wish. A correct answer yields 3 points, and an incorrect or invalid answer yields -1 point.

## Correct Answers

	A	B	C	D	E	F
Question 1			✓			
Question 2			✓			
Question 3				✓		
Question 4						✓
Question 5			✓			
Question 6		✓				
Question 7				✓		
Question 8			✓			

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