MAT 25	8 Quiz 2	Answer Sheet								
May 22, 2023										
Quiz ID	: ZFM		Name:							
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										

Submit electronic answers at

http://azrael.digipen.edu/cgi-bin/MAT258quiz.pl

MAT 258

a) 28

b) 20

Quiz 2

May 22, 2023

1.	How many bit string	How many bit strings of length 7 contain both of the substrings 0110 and 1001?							
	a) 8	b) 16	c) 12	d) 10	e) 6				
2.	. A task consists of lining up 6 people from left to right and then placing a penny, a nickel, a dime, and a quart into the left or right pocket of 4 of these 6 people. In the end there will be exactly one coin in exactly of pocket of exactly 4 of the 6 people, who are standing in order from left to right. In how many different was can this task be performed?								
	a) $(6!4!)^2$	b) $(6!)^2 2^4$	c) $(6!)^2 2^3$	d) $(6!)^2 4!$	e) $(6!2^4)^2$				
3.	How many strings of occurs at least twice	_	hose characters are ch	nosen from the digits (0,1, and 2, if each digit				
	a) 500	b) 720	c) 600	d) 630	e) 520				
4.	How many different	functions are there from	$M X = \{1, 2, 3, 4\} \text{ to } Y$	$Y = \{5, 6, 7\}$?					
	a) 81	b) 89	c) 84	d) 80	e) 85				
5.	How many different	surjective (onto) funct	ions are there from X	$= \{1, 2, 3, 4\} \text{ to } Y = \{$	5, 6, 7}?				
	a) 45	b) 30	c) 56	d) 80	e) 36				
c	How many solutions	does the equation m		7 have with integers	. > 02				
υ.	a) 500	does the equation x_1 -b) 384	$+x_2 + x_3 + x_4 + x_5 =$ c) 330	d) 104	e) 424				
	<i>a)</i> 500	D) 904	c) 330	u) 104	6) 424				
_	TT 1		<u>-</u>	-1					
7.	How many solutions each $x_i \leq 2$? (Hint:	have with integers x_i	≥ 0 and assuming that						
	a) 64	b) 30	c) 40	d) 24	e) 84				
8.	What is the cardinali	ity of $A \cup B \cup C$ if A and	$d B \text{ are disjoint}, A \cap C $	$ C = 4, B \cap C = 6, \text{ and}$	A A = B = C = 10?				

c) 30

d) 18

e) 24