Control Task

Plan a Theme Park

**Instructions:**

You are to plan a theme park with rides and attractions that would appeal to people of all ages. Please use the graphing paper provided to design your theme park. The number beside each item indicates the maximum number of blocks it can take up on the graphing paper. Choose 10 items from the list below to include in your park. Please label rides and attractions appropriately.

Item Maximum # of Blocks

Roller Coaster 11 X 11

Water Ride 12 X 12

Ferris Wheel 10 X 10

Bumper Cars 10 X 10

Tilt-A-Whirl 9 X 9

Himalaya 10 X 10

Swinging Boat 8 X 8

Virtual Reality Ride 10 X 10

Carnival Game Booths 9 X 9

Gift Shop 8 X 8

Carousel 8 X 8

Train Ride 12 X 12

Mini Roller Coaster 8 X 8

Concession Stand or Restaurant 10 X 10

Amphitheater (for shows) 12 X 12

Achievement Task

Verbal Task

**Instructions**: Please spend 10 minutes practicing and memorizing the following passage. After 10 minutes, you will be asked to recite the passage into a voice recorder.

"Is this the region, this the soil, the clime,"

# **Said then the lost Archangel, "this the seat**

That we must change for Heaven?--this mournful gloom

For that celestial light? Be it so, since he

Who now is sovereign can dispose and bid

What shall be right: farthest from him is best

Whom reason hath equalled, force hath made supreme

Above his equals. Farewell, happy fields,

Where joy for ever dwells! Hail, horrors! hail,

Infernal world! and thou, profoundest Hell,

Receive thy new possessor--one who brings

A mind not to be changed by place or time.

The mind is its own place, and in itself

Can make a Heaven of Hell, a Hell of Heaven.

What matter where, if I be still the same,

And what I should be, all but less than he

Whom thunder hath made greater? Here at least

We shall be free; th' Almighty hath not built

Here for his envy, will not drive us hence:

Here we may reigh secure; and, in my choice,

To reign is worth ambition, though in Hell:

Better to reign in Hell than serve in Heaven."

Achievement Task

New Roman Problem Set

Instructions: Below you will find a list of base-10 numbers and their representation in New Roman. You will also find four rules of the New Roman numbering system. Please use the information in this table to complete the set of addition problems using the New Roman numbering system.

|  |
| --- |
| List of base-10 numbers and their New Roman representation |
| 0 = 00 | 11 = 0101 | 40 = 0400 |
| 1 = 01 | 12 = 0102 | 50 = 0500 |
| 2 = 02 | 13 = 0103 | 60 = 6000 |
| 3 = 03 | 14 = 0104 | 70 = 6100 |
| 4 = 04 | 15 = 0105 | 80 = 6200 |
| 5 = 05 | 16 = 0160 | 90 = 6300 |
| 6 = 60 | 17 = 0161 | 100 = 010000 |
| 7 = 61 | 18 = 0162 |  |
| 8 = 62 | 19 = 0163 |  |
| 9 = 63 | 20 = 0200 |  |
| 10 = 0100 | 30 = 0300 |  |
| New Roman Fundamental Rules: |
| 1) Each digit in base 10 is split into two digits in New Roman |
| 2) In each pair of New Roman digits the right digit ranges between 0-5 |
| 3) In each pair of New Roman digits the left digit can only be either 0 or 6 |
| 4) 64 and 65 are not allowed to represent 10 and 11 because they violate the first rule.  |

Example Problems Using New Roman System:

|  |  |  |  |
| --- | --- | --- | --- |
| **Example 1**No Carry | **Example 2**Carry into 6 | **Example 3**Carry from 6 | **Example 4**Carry into and from 6 |
|  0361 +0202 0563 |  04 +04 ~~8~~ Invalid number 62 Carry a six leave remainder  |  0261 +0162 0423 Sum columns carry a ten 04~~23~~ Add digits 0405 Form valid number |  62 +0305 ~~7~~ Invalid number so so carry a six and  leave remainder 0421 Sum columns  carry a ten 04~~21~~ Add digits 0403 Form valid  number |

Solve:

|  |  |  |
| --- | --- | --- |
| (1) 010401 + 600302 | (7) 010263 +040302 | (13) 020263 +600201 |
| (2) 606160 +020161 | (8) 010105 +600103 | (14) 026360 +606102 |
| (3) 030063 +020205 | (9) 016105 +620160 | (15) 600100 +010304 |
| (4) 036002 +020405 | (10) 616005 +026202 | (16) 010105 +000103 |
| (5) 606202 +020403 | (11) 010263 +600104 | (17) 030063 +020260 |
| (6) 026002 +026161 | (12) 026360 +606102 | (18) 016202 +010403 |
|  |  | (19) 020401 +010201 |
|  |  | (20) 010304 +020203 |