1) Task Card 1

Christoper has 3 ballons.

One is blue, one is orange and one is green.

He is going to pop them one by one.

How many different ways could be pop the balloons?

2) Task Card 2

What numbers between 10 and 50 will equal 7 when you add the digits together?

3) Task Card 3

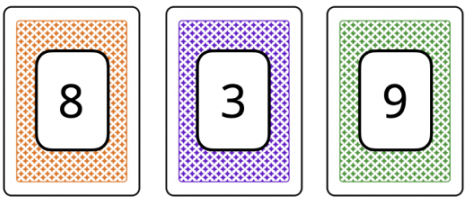
One hour ago it was 4 hours before 2:00pm.

What time is it now?

4) Task Card 4

How many 3 digit odd numbers can I make by rearranging these cards?

I must use all 3 cards.



5) Task Card 5

Coraline has a box of 27 chocolates.

She has decided to eat 3 chocolates every day.

Today is Saturday.

On which day of the week will she eat her last 3 chocolates?

6) Task Card 6

Kiri is going to eat a sandwich, a biscuit, an apple and a chocolate frog for lunch.

She always eats an apple immediately after she eats chocolate.

How many different ways can Kiri eat her lunch?

7) Task Card 7

What numbers between 200 and 300 will equal 9 when you add the digits together?

8) Task Card 8

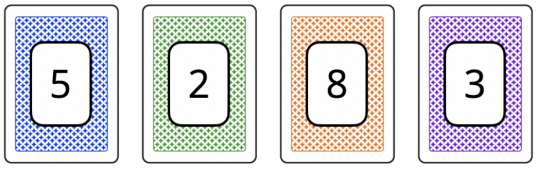
Two hours ago it was 3 ½ hours before 12:00pm.

What time is it now?

9) Task Card 9

How many even 4 digit numbers can I make by rearranging these cards?

I must use all 4 cards.



10) Task Card 10

Ahmed has an older brother.

Ahmed is one third of his brother's age.

When Ahmed is the age that his brother is now, his brother will be 20.

How old are Ahmed and his brother now?

1) Task Card 1

Christoper has 3 ballons.

One is blue, one is orange and one is green.

He is going to pop them one by one.

How many different ways could be pop the balloons?

Hint: Write an organised list.

2) Task Card 2

What numbers between 10 and 50 will equal 7 when you add the digits together?

Hint:

3) Task Card 3

One hour ago it was 4 hours before 2:00pm.

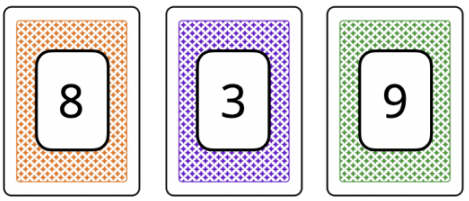
What time is it now?

Hint: Draw a timeline and start by finding the time time four hours before 2:00pm.

4) Task Card 4

How many 3 digit odd numbers can I make by rearranging these cards?

I must use all 3 cards.



Hint: How many can you find that start with 8? With 3? With 9?

5) Task Card 5

Coraline has a box of 27 chocolates.

She has decided to eat 3 chocolates every day.

Today is Saturday.

On which day of the week will she eat her last 3 chocolates?

Hint: How many chocolates will Coraline still have next Saturday?

6) Task Card 6

Kiri is going to eat a sandwich, a biscuit, an apple and a chocolate frog for lunch.

She always eats an apple immediately after she eats chocolate.

How many different ways can Kiri eat her lunch?

Hint: Write an organised list. Can Kiri ever start with chocolate?

7) Task Card 7

What numbers between 200 and 300 will equal 9 when you add the digits together?

Hint:

8) Task Card 8

Two hours ago it was 3 ½ hours before 12:00pm.

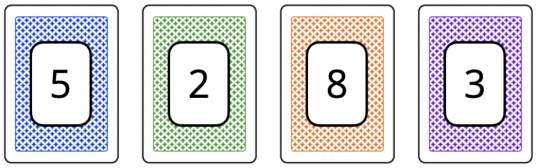
What time is it now?

Hint: Draw a timeline and start by finding the time time 3 ½ hours before 12:00pm.

9) Task Card 9

How many even 4 digit numbers can I make by rearranging these cards?

I must use all 4 cards.



Hint: How many can you find that end with 8? With 5? With 3? With 2?

10) Task Card 10

Ahmed has an older brother.

Ahmed is one third of his brother's age.

When Ahmed is the age that his brother is now, his brother will be 20.

How old are Ahmed and his brother now?

Hint: The age Ahmed's brother is now must divide equally by 3.
It must also be less than 20.

Task Card Answers

1) 6

2) 16, 25, 34, 43

3) 11:00 am

4) 4

5) Sunday

6) 6

7) 207, 216, 225, 234, 252, 261, 270

8) 10:30 am

9) 12

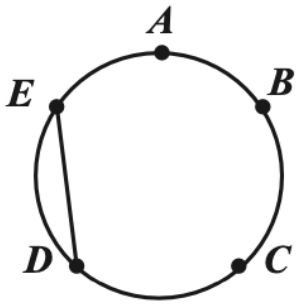
10) Ahmed is 4 and his brother is 12.

Challenge #1

A line segment (such as ED as shown) that connects any two points of a circle is called a chord of the circle.

How many different chords, including ED, can be drawn using only points A, B, C, D, and E?

(Note: ED is the same as DE)



Challenge #2

A rectangle has a perimeter of 90 cm.

The length of the rectangle is 25 cm more than its width.

Find the area of the rectangle, in square centimetres.

Challenge #3

A shopkeeper sells house numbers.

She has a large supply of the numerals 4, 7, and 8, but no other numerals.

How many different three-digit house numbers could be made using only the numerals in her supply?

Challenge #4

There are 5 girls in a tennis class.

How many different doubles teams of 2 girls each can be formed from the students in the class?

Challenge #5

A group consisted of 2 girls for every boy.

24 more girls joined the group.

There are now 5 girls for every boy.

How many boys are in the group?

Solutions:

Challenge #1

10 different chords.

Strategy: *Make an organised list.*

After noting that DE and ED are the same chord, list all chords.

Be sure to list them in order.

We can draw 10 different chords.

AB BC CD DE AC
BD CE
AD BE
AE

Challenge #2

The area of the rectangle is 350 square centimetres.

Strategy: *Find the semi-perimeter.*

The perimeter of a rectangle, the sum of two lengths and two widths, is 90 cm.

The sum of one length and one width, called the semi-perimeter, is half of 90, or 45 cm.

The two numbers with a sum of 45 that differ by 25 are 10 and 35.

The area of the rectangle is 10 × 35 = 350 square centimetres.

Challenge #3

27 numbers.

Strategy: *List the numbers in an organised way.*

444 474 484	744 774 784	844 874 884
447 477 487	747 777 787	847 877 887
448 478 488	748 778 788	848 878 888

Challenge #4

10 different teams can be formed.

Strategy: *Make an organised list.*

Refer to the five girls as *A*, *B*, *C*, *D* and *E*.

All teams including *A*: *AB AC AD AE*

Teams including *B* but not *A*: *BC BD BE*

Teams including *C* but not *A* or *B*: *CD CE*

Teams not including *A*, *B*, or *C*: *DE*

Counting up all the above, 10 different teams can be formed.

Challenge #5

8 boys are in the group.

Strategy: *Decide how adding 24 girls changes the ratio.*

The number of boys stays the same.

However, the addition of 24 girls changes the number of girls for every boy from 2 to 5.

That is, a total of 24 more girls results in 3 more girls for every boy.

Since 24 ÷ 3 = 8, 8 boys are in the group.