

Calendar Challenge 2 (Medium/Hard)

These are 8 months of a particular year.

The names of the months are missing and they are not in order.

Can you figure out to which months the following 8 calendar pages belong?

**August**

MO	TU	WE	TH	FR	SA	SU
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

**December**

MO	TU	WE	TH	FR	SA	SU
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

**July/January**

MO	TU	WE	TH	FR	SA	SU
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

**May**

MO	TU	WE	TH	FR	SA	SU
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

**November**

MO	TU	WE	TH	FR	SA	SU
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

**July/January**

MO	TU	WE	TH	FR	SA	SU
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

**February**

MO	TU	WE	TH	FR	SA	SU
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29			

**March**

MO	TU	WE	TH	FR	SA	SU
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

1. Which year is this and how do you know?  
 2. Here are 8 calendar pages. 4 are missing.  
 Can you create the remaining 4 calendar pages?

**Answer**

1. This calendar shows **a leap year** because one of the months has **29 days** and that can only be **February** in a leap year.

These months did not match with 2020 which is a leap year and so I tried to match it with the previous and next leap year. It did not match 2016 but it matched with 2024.

Answer: 2024

2. The missing months are:

APRIL							JUNE							SEPTEMBER							OCTOBER												
MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU						
					6	7						1	2											1			1	2	3	4	5	6	
1	2	3	4	5	6	7	3	4	5	6	7	8	9	2	3	4	5	6	7	8	7	8	9	10	11	12	13						
8	9	10	11	12	13	14	10	11	12	13	14	15	16	9	10	11	12	13	14	15	14	15	16	17	18	19	20						
15	16	17	18	19	20	21	17	18	19	20	21	22	23	16	17	18	19	20	21	22	21	22	23	24	25	26	27						
22	23	24	25	26	27	28	24	25	26	27	28	29	30	23	24	25	26	27	28	29	28	29	30	31									
29	30													30																			

**Note:**

One may notice that **July and January in a leap year match**. There dates fall on the same days. This is because there are exactly 182 days from January 1st till July 1st and this numbers divides exactly by 7. Therefore there are exactly 26 weeks.

This does not happen if it's not a leap year because then there are 181 days (25 weeks and 6 days).

Also the same thing happens in **March and November**. However this happens **every year** since being a leap year or not there are always 217 days between the 1st of March and the 1st of November. This number is divisible by 7 and therefore it is exactly 31 weeks. The only difference between these two months is that March has 31 days and November has 30 day.