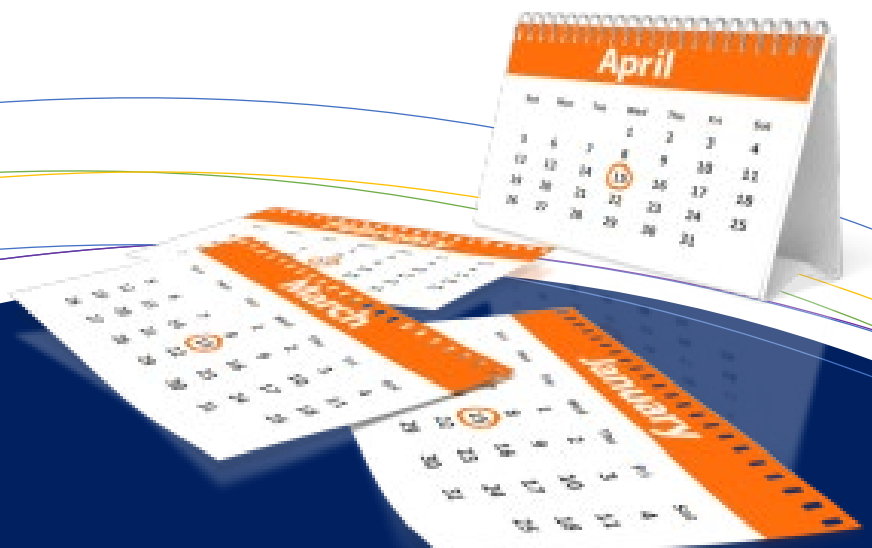


Critical Calculations Practice Packet





Symptomatic Isolation



January

2021

Scenario

Daniel: Symptomatic Isolation

- Daniel develops a fever and a cough on January 13th.
- By January 20th, Daniel's fever is gone, and they are feeling much better.
- When is Daniel's last day of isolation?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13 Daniel develops fever & cough	14	15	16
17	18	19	20 Daniel has no fever for 24 hours and feels much better	21	22	23
24	25	26	27	28	29	30
31						

January

2021

Solution

Daniel: Symptomatic Isolation

Daniel's last day of isolation would be January 23rd. It has been 10 days since the first development of symptoms on January 13th, it has been at least 24 hours since Daniel has had a fever (without fever reducing medication), and their other symptoms have improved.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13 Daniel develops fever & cough	14	15	16
17	18	19	20 Daniel has no fever, feels much better	21	22	23 Daniel's last day of isolation
24	25	26	27	28	29	30
31						

March

2021

Scenario

Maria: Symptomatic Isolation

- On the afternoon of March 5th, Maria has a headache, and later that evening develops a fever of 101.2 °F.
- On the 14th of March, Maria still has a low-grade fever of 100.4°F.
- Finally, on March 16th, their fever ends.
- Given this information, when is Maria's last day of isolation?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5 Maria develops headache & fever	6
7	8	9	10	11	12	13
14 Maria still has fever of 100.4°F	15	16 Maria's fever ends	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

March

2021

Solution

Maria: Symptomatic Isolation

Maria's last day of isolation would be March 17th. Although on the 15th it will have been 10 days since the initial development of symptoms, Maria still has a fever on the 15th. Since their fever ends on the 16th, Maria's last day of isolation will be March 17th.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
					Maria develops headache & fever	
7	8	9	10	11	12	13
14	15	16	17	18	19	20
Maria still has fever of 100.4°F		Maria's fever ends	Maria's last day of isolation			
21	22	23	24	25	26	27
28	29	30	31			

August

2021

Scenario

Taylor: Symptomatic Isolation

- Taylor wakes up the morning of August 17th with a fever and upon drinking their coffee, notices they cannot taste or smell it.
- By August 25th, Taylor no longer has a fever.
- On the 27th, they notice their only remaining symptoms are that they still cannot taste or smell.
- When is Taylor's last day of isolation?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17 Taylor develops a fever and loss of taste & smell	18	19	20	21
22	23	24	25 Taylor's fever ends	26	27 Loss of taste and smell remain	28
29	30	31				

August

2021

Solution

Taylor: Symptomatic Isolation

Taylor's last day of isolation will be August 27th. This fulfills the criteria including 10 days since initial development of symptoms, at least 24 hours fever free, and improvement of symptoms. While Taylor still cannot taste or smell, the CDC acknowledges that researchers have reported that people with mild to moderate COVID19, as seen in Taylor's case, typically remain infectious no longer than 10 days after symptoms begin. So long as they meet all the isolation clearance recommendations, then they can end isolation.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
		Taylor develops a fever and loss of taste & smell				
22	23	24	25	26	27	28
			Taylor's fever ends		Loss of taste and smell remain Taylor's last day of isolation	
29	30	31				



Asymptomatic Isolation

April

2021

Scenario

Jaleh: Asymptomatic Isolation

- Jaleh tests positive for COVID-19 on April 5th and isolates.
- They never develop symptoms.
- When is the last date of Jaleh's isolation?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5 Jaleh tests positive for COVID-19	6	7	8	9	10
11	12	13	14	15 Jaleh never develops symptoms	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

April

2021

Solution

Jaleh: Asymptomatic Isolation

Jaleh's last day of isolation is April 15th. That is ten days from their positive test and they never developed any symptoms. The reason for ten days is because of the infectious period of the virus.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5 Jaleh tests positive for COVID-19	6	7	8	9	10
11	12	13	14	15 Jaleh never develops symptoms Jaleh's last day of isolation.	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

May

2021

Scenario

Martin – Asymptomatic Isolation

- Martin believes they were exposed to COVID-19, therefore gets tested on May 17th .
- Martin receives their positive test results on May 22nd.
- Martin never develops any symptoms.
- When is the last date of Martin’s isolation?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17 Martin gets tested for COVID-19	18	19	20	21	22 Martin receives positive test results for COVID-19
23	24	25	26	27	28	29
30	31					

May

2021

Solution

Martin – Asymptomatic Isolation

Martin's last date of isolation is May 27th. We calculate ten days from when the positive test was administered – not when they received results.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
	Martin gets tested for COVID-19					Martin receives positive test results for COVID-19
23	24	25	26	27	28	29
				Martin's last day of isolation.		
30	31					

October

2021

Scenario

Fatima – Asymptomatic Isolation

- Fatima is instructed to get tested for COVID-19, which they do on October 6th.
- Fatima receives their positive COVID-19 results on October 15th.
- Meanwhile, Fatima never develops any symptoms.
- What is the last date of Fatima's isolation?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6 Fatima is test for COVID-19	7	8	9
10	11	12	13	14	15 Fatima receives positive test results and has no	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

October

2021

Solution

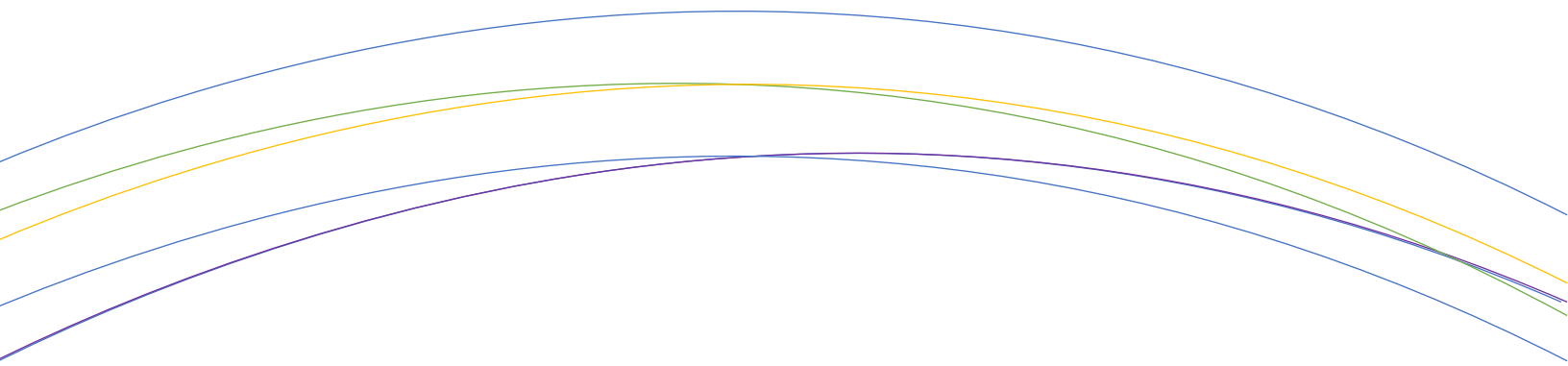
Fatima – Asymptomatic Isolation

Fatima's last date of isolation is October 16th. Even though they did not receive their results until the 15th the isolation period is calculated from the date of testing – not the date of results.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6 Fatima is test for COVID-19	7	8	9
10	11	12	13	14	15 Fatima receives positive test results and has no symptoms	16 Fatima's last date of isolation
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						



Quarantine



Note: CDC currently recommends a quarantine period of 14 days. However, based on local circumstances and resources, there are options to shorten quarantine as an acceptable alternative. [Options to Reduce Quarantine for Contacts of Persons with SARS-CoV-2 Infection Using Symptom Monitoring and Diagnostic Testing](#) | CDC

June

2021

Scenario

Diego: Quarantine

- Diego's brother develops a fever and sore throat on June 10th.
- His brother gets tested for COVID-19 on June 11th, and on June 14th receives a positive result.
- Diego's brother then self-isolates at home on June 15th.
- When is Diego's last day of quarantine, assuming they had contact with their brother on June 14th?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10 Diego's brother develops fever and sore throat	11 Diego's brother tests for COVID-19	12
13	14 Diego's brother receives a positive on his COVID-19 test	15 Diego's brother self-isolates at home	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

June

2021

Solution

Diego: Quarantine

Diego's last day of quarantine is June 28th. Anyone who has had close contact with a confirmed case should quarantine for 14 days from last contact.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10 Diego's brother develops fever and sore throat	11 Diego's brother tests for COVID-19	12
13	14 Diego's brother receives a positive on his COVID-19 test	15 Diego's brother self-isolates at home	16	17	18	19
20	21	22	23	24	25	26
27	28 Diego's last day of quarantine	29	30			

February

2021

Scenario

Varo: Quarantine

- Varo's mother develops a cough, fatigue, and loss of smell on February 2nd.
- Varo's mother tests for Covid-19 on February 4th.
- On February 5th Varo's mother tests positive for COVID-19. Varo's mother self-isolates on February 7th.
- What is Varo's last quarantine date, assuming they last contacted their mother on February 7th?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2 Varo's mother develops symptoms	3	4 Varo's mother tests for COVID-19	5 Varo's mother tests positive for COVID-19.	6
7 Varo's mother self-isolates	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

February

2021

Solution

Varo: Quarantine

Varo's last date of quarantine is February 21st because he last had contact with his mother on February 7th.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2 Varo's mother develops symptoms	3	4 Varo's mother tests for COVID-19	5 Varo's mother receives a positive result on the COVID-19 test	6
7 Varo's mother self-isolates	8	9	10	11	12	13
14	15	16	17	18	19	20
21 Varo's last day of quarantine	22	23	24	25	26	27
28						

November

2021

Scenario

Mia: Quarantine

- Mia's partner develops a fever, cough, and fatigue on November 2nd.
- Mia's partner gets tested for COVID-19 on November 4th.
- Mia's partner receives positive results on their Covid-19 test on November 6th.
- Mia's partner self-isolates on November 7th. Mia visits the partner on November 10th to fix dinner and clean their partner's apartment.
- What is Mia's last day of quarantine?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2 Mia's partner develops symptoms	3	4 Mia's partner gets tested for COVID-19	5	6 Mia's partner receives a positive result on the COVID-19 test
7 Mia's partner self-isolates	8	9	10 Mia's has close contact with the partner at their partner's apartment	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

November

2021

Solution

Mia: Quarantine

Mia's last day of quarantine is November 24th. Since they had close contact again on November 10th the quarantine period must begin on that date.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2 Mia's partner develops symptoms	3	4 Mia's partner gets tested for COVID-19	5	6 Mia's partner receives a positive result on the COVID-19 test
7 Mia's partner self-isolates	8	9	10 Mia's has close contact with the partner at their partner's apartment	11	12	13
14	15	16	17	18	19	20
21	22	23	24 Mia's last day of quarantine	25	26	27
28	29	30				



Contact Elicitation Window

May

2021

Scenario

Harry: Contact Elicitation Window

- Harry develops a fever and a cough on May 12th. On the 13th, Harry decides to go in for a COVID-19 test and receives a positive test result on May 14th.
- That same day, Harry decides to isolate. What is Harry's contact elicitation window?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12 Harry develops fever & cough	13 Harry goes in for a COVID-19 test	14 Harry receives positive results, begins isolation	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

May

2021

Solution

Harry: Contact Elicitation Window

Harry's contact elicitation window would be May 10th – May 14th. Harry first developed symptoms on the 12th of May, so you would go back 2 days from symptom development to determine the beginning of the contact elicitation window. Since Harry entered isolation on the 14th of May, this would be the last day of their contact elicitation window.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10 Contact elicitation window begins	11	12 Harry develops fever & cough	13 Harry goes in for a COVID-19 test	14 Harry isolates Window ends	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

July

2021

Scenario

Ariel: Contact Elicitation Window

- Ariel goes in for a COVID-19 test on July 25th.
- Ariel has no symptoms.
- They receive a call from a case investigator on July 29th, informing them of their positive test result.
- After speaking with the case investigator, Ariel agrees to enter isolation that same day.
- What is Ariel's contact elicitation window?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				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
Ariel gets tested for COVID-19				Ariel begins isolation		

July

2021

Solution

Ariel: Contact Elicitation Window

Ariel's contact elicitation window would be July 23rd – July 29th. Since Ariel is asymptomatic, the best way to determine their contact elicitation window would be going back 2 days from when they went in for a COVID-19 test, through their first day of isolation.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				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
Ariel gets tested for COVID-19				Ariel begins isolation	Contact elicitation window begins	
				Contact elicitation window ends		

September

2021

Scenario

Kevin: Contact Elicitation Window

- Kevin develops a headache and a fever on September 8th.
- Kevin knows these are common COVID-19 symptoms, so decides to go in for a test, he tests positive, and begins to isolate that day.
- What is Kevin's contact elicitation window?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8 Kevin develops symptoms and isolates. Kevin tests positive	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

September

2021

Solution

Kevin: Contact Elicitation Window

Kevin's contact elicitation window would be September 6th – September 8th. Kevin develops symptoms on the 8th of September, making their first day of the contact elicitation window September 6th, or two days prior to onset of symptoms. Since Kevin began isolating on the 8th, that would be the last day of their window for eliciting contacts.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6 Contact elicitation window begins	7	8 Kevin isolates Kevin tests positive Contact elicitation window ends	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		