CLASS: Quotient Remanider Theorem

Due Feb 8 at 11:59pm **Points** 2 **Questions** 2 **Time Limit** None
Allowed Attempts Unlimited

Instructions

This CLASS assignment is a introduction to the application of the Quotient Remainder Theorem.

You have multiple attempts in answering the question

Chapter 4 note (https://www.youtube.com/watch?v=L8LTE2xgm9g&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=2)

Take the Quiz Again

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	8 minutes	2 out of 2

Correct answers are hidden.

Score for this attempt: **2** out of 2
Submitted Feb 8 at 3:37pm
This attempt took 8 minutes.

Question 1 — 1 / 1 pts

If a divides b and both positive, then a is smaller than or equal b (https://www.youtube.com/watch?v=qlbXdLdXW0Q&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=11(

The Only Divisors of 1 are 1 and -1 (https://www.youtube.com/watch?v=8QfZk1Uha70&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=110)

Transitive Property of Divisibility (https://www.youtube.com/watch?v=Vcc5BrNbDBw&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=11

Unique Factorization (https://www.youtube.com/watch?v=FTtPcnzYAMY&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=116

Suppose m is an integer such that 8·7·6·5·4·3·2·m = 17·16·15·14·13·12·11·10. 17 divides m (https://www.youtube.com/watch?v=mxG6faicwB8&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=117)

Quotient Remainder Theorem (https://www.youtube.com/watch?v=rRUspOiF-tY&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=119)

Quotient Remainder Theorem Note.pdf (https://deanza.instructure.com/courses/33250/files/10826784?wrap=1) (https://deanza.instructure.com/courses/33250/files/10826784/download?download_frd=1)

Now answer the following question:

Suppose today is Tuesday, and neither this year nor next year is a leap year. What day of the week will it be 1 year from today?

Solution There are 365 days in a year that is not a leap year, and each week has 7 days. Now

$$365 \; div \; 7 = 52 \quad \text{and} \quad 365 \; mod \; 7 = 1$$

because $365 = 52 \cdot 7 + 1$. Thus 52 weeks, or 364 days, from today will be a Tuesday, and so 365 days from today will be _____

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday

Sunday

Question 2

1 / 1 pts

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The Only Divisors of 1 are 1 and -1 (https://www.youtube.com/watch?v=8QfZk1Uha70&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=110)

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Now answer the following question:

Suppose m is an integer. If $m \bmod 11 = 6$, what is $4m \bmod 11$?

2

Quiz Score: **2** out of 2