Course is completed. The course result can no longer be changed.

Greatest Common Divisor (GCD)

Quiz

Bookmark this page

Now, it's time for a short quiz to recap what you've learned. The quiz is **graded**, so you can take it only once. Each question will be followed by feedback explaining why your answer is right or wrong. If your answer is incorrect, you will see a suggestion of what you might need to refresh your memory.

Good luck!

Read the question below and enter an answer. Then, click "Submit."

What is the $gcd\,(115, 34)$?

1 ✔

1

Submit You have used 1 of 1 attempt

Read the question below and enter an answer. Then, click "Submit."

What is the $gcd\,(15, 75)$?

15 ✔

15

Submit You have used 1 of 1 attempt

*Read the question below and select **all** the answers that are correct. Then, click "Submit."*

Let $a \neq 0$ and $b \neq 0$. Which THREE of the following statements are correct?

- [x] $gcd\,(a, b) = gcd\,(-a, b)$
- [ ] $gcd\,(a, 0) = 0$
- [x] $gcd\,(a, b) = gcd\,(|a|, |b|)$
- [ ] $gcd\,(a, b) \neq gcd\,(-b, a)$
- [x] $\forall k \in Z : gcd\,(a, ka) = |a|$

✔

Correct: Nice job!

Submit You have used 1 of 1 attempt

*Read the question below and select **all** the answers that are correct. Then, click "Submit."*

Which TWO of the following statements are correct?

- [x] $d \mid a \,\&\, d \mid b \rightarrow d \mid gcd\,(a, b)$
- [x] $\forall k > 0 : k \mid ab \,\&\, gcd\,(a, k) = 1 \rightarrow k \mid b$
- [ ] $gcd\,(an, bm) \neq n\ gcd\,(a, b)$
- [ ] $gcd\,(a, gcd\,(b, c)) \neq gcd\,(gcd\,(a, b)\,, c)$

✔

Correct: Great job!

Submit You have used 1 of 1 attempt

Read the question below and select the correct answer. Then, click "Submit."

Let $a > b \geq 0$. What is the time complexity of Euclid's algorithm?

- ○ $O\,(b)$
- ○ $O\,(log\ log\ a)$
- ○ $O\,(a)$
- ◉ $O\,(log\ b)$

✔

Correct: Nice job!

Submit You have used 1 of 1 attempt

Read the question below and enter an answer. Then, click "Submit."

What is the least common multiple of 15 and 9?

45 ✔

45

Submit You have used 1 of 1 attempt

Read the question below and select the correct answer. Then, click "Submit."

What is the relationship between $lcm\,(a, b)$ and $gcd\,(a, b)$?

- ○ $lcm\,(a, b) = gcd^2\,(a, b)\,/\,(a * b)$
- ○ $lcm\,(a, b) = a * b * gcd\,(a, b)$
- ◉ $lcm\,(a, b) = a * b/gcd\,(a, b)$
- ○ $lcm\,(a, b) = a * b/gcd^2\,(a, b)$

✔

Correct: Nice job!

Submit You have used 1 of 1 attempt

Read the question below and select the correct answer. Then, click "Submit."

Let $a > b \geq 0$. What is the time complexity of the extended Euclidean algorithm?

- ◉ $O\,(log\ b)$
- ○ $O\,(b^2)$
- ○ $O\,(a)$
- ○ $O\,(a\ log\ b)$

✔

Correct: Great job!

Submit You have used 1 of 1 attempt

PREVIOUS NEXT