

CSCI 124 and CSCI 224 - Discrete Structures II
GCD Practice Problems

Find the GCD of the following numbers using the euclidean algorithm. You may use a calculator to compute remainders.

1. 70, 120
2. 168, 504
3. 180, 600
4. 260, 455
5. 60, 84
6. 234, 470
7. 480, 1800
8. 84, 180
9. 120, 144
10. 292, 244
11. 210, 861
12. 64, 160
13. 308, 504
14. 1386, 1170
15. 1890, 450
16. 696, 432
17. 105, 231
18. 273, 595
19. 910, 1155

Solutions

1. 70, 120
(120, 70) (70, 50) (50, 20) (20, 10) (10, 0)
GCD=10
2. 168, 504
(504, 168) (168, 0)
GCD = 168
3. 180, 600
(600, 180) (180, 60) (60, 0)

GCD=60

4. 260, 455

(455, 260) (260, 195) (195, 65), (65, 0)

GCD=65

5. 60, 84

(84, 60) (60, 24) (24, 12) (12, 0)

GCD=12

6. 234, 470

(470, 234) (234, 2) (2, 0)

GCD=2

7. 480, 1800

(1800, 480) (480, 360) (360, 120) (120, 0)

GCD = 120

8. 84, 180

(180, 84) (84, 12) (12, 0)

GCD = 12

9. 120, 144

(144, 120) (120, 24) (24, 0)

GCD = 24

10. 292, 244

(292, 244) (244, 48) (48, 4) (4, 0)

GCD=4

11. 210, 861

(861, 210) (210, 21) (21, 0)

GCD=21

12. 64, 160

(160, 64) (64, 32) (32, 0)

GCD=32

13. 308, 504

(504, 308) (308, 196) (196, 112) (112, 84) (84, 28) (28, 0)

GCD=28

14. 1386, 1170

(1386, 1170) (1170, 216) (216, 90) (90, 36) (36, 18) (18, 0)

GCD=18

15. 1890, 450

(1890, 450) (450, 90) (90, 0)

GCD=90

16. 696, 432

(696, 432) (432, 264) (264, 168) (168, 96) (96, 72) (72, 24) (24, 0)

GCD = 24

17. 105, 231

(231, 105) (105, 21) (21, 0)

GCD=21

18. 273, 595

(595, 273) (273, 49) (49, 28) (28, 21) (21, 7) (7, 0)

GCD = 7

19. 910, 1155

(1155, 910) (910, 245) (245, 175) (175, 70) (70, 45) (45, 25) (25, 20) (20, 5) (5, 0)

GCD=5