Unit 6 - Week 4

Assignment 4

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-10-14, 23:59 IST.

NOTE: Please note that multiple options may be correct.

1) Which of the following numbers are solutions to the following system of simultaneous linear congruences: $n \equiv 1 \pmod 4$, $n \equiv 2 \pmod 3$? *1 point*

- [ ] 137,
- [ ] 161,
- [ ] 209,
- [ ] 233,
- [ ] 281,
- [ ] 353.

No, the answer is incorrect.
Score: 0
Accepted Answers:
137,
161,
209,
233,
281,
353.

2) Which of the following numbers are solutions to the following system of simultaneous linear congruences: $n \equiv 7 \pmod 9$, $n \equiv 3 \pmod 4$? *1 point*

- [ ] 259,
- [ ] 287,
- [ ] 311,
- [ ] 335,
- [ ] 371,
- [ ] 403.

No, the answer is incorrect.
Score: 0
Accepted Answers:
259,
403.

3) Which of the following numbers are solutions to the following system of simultaneous linear congruences: $3n \equiv 6 \pmod{12}$, $3n \equiv 1 \pmod 5$? *1 point*

- [ ] 422,
- [ ] 482,
- [ ] 512,
- [ ] 562,
- [ ] 592,
- [ ] 662.

No, the answer is incorrect.
Score: 0
Accepted Answers:
422,
482,
562,
662.

4) Which of the following numbers are solutions to the following system of simultaneous linear congruences: $n \equiv 1 \pmod 4$, $n \equiv 2 \pmod 3$, $n \equiv 3 \pmod 5$? *1 point*

- [ ] 733,
- [ ] 773,
- [ ] 833,
- [ ] 953,
- [ ] 983,
- [ ] 993.

No, the answer is incorrect.
Score: 0
Accepted Answers:
773,
833,
953,

5) Which of the following numbers are solutions to the following system of simultaneous linear congruences: $n \equiv 2 \pmod 7$, $n \equiv 7 \pmod 9$, $n \equiv 3 \pmod 4$? *1 point*

- [ ] 763,
- [ ] 835,
- [ ] 907,
- [ ] 979,
- [ ] 1087,
- [ ] 1159.

No, the answer is incorrect.
Score: 0
Accepted Answers:
835,
1087,

6) Which of the following numbers are solutions to the following system of simultaneous linear congruences: $3n \equiv 6 \pmod{12}$, $2n \equiv 5 \pmod 7$, $3n \equiv 1 \pmod 5$? *1 point*

- [ ] 662,
- [ ] 762,
- [ ] 782,
- [ ] 902,
- [ ] 972,
- [ ] 992.

No, the answer is incorrect.
Score: 0
Accepted Answers:
762,
902,

7) Which of the following numbers are solutions to the following system of simultaneous linear congruences: $n \equiv 1 \pmod 5$, $n \equiv 2 \pmod 7$, $n \equiv 3 \pmod 9$, $n \equiv 4 \pmod{11}$? *1 point*

- [ ] 1551,
- [ ] 1641,
- [ ] 1731,
- [ ] 1821,
- [ ] 1911,
- [ ] 1961.

No, the answer is incorrect.
Score: 0
Accepted Answers:
1731,

8) Which of the following numbers are solutions to the following system of simultaneous linear congruences: $2n \equiv 1 \pmod 3$, $3n \equiv 1 \pmod 5$, $4n \equiv 1 \pmod 7$, $5n \equiv 1 \pmod{11}$? *1 point*

- [ ] 1052,
- [ ] 1157,
- [ ] 1262,
- [ ] 1367,
- [ ] 1472,
- [ ] 1577.

No, the answer is incorrect.
Score: 0
Accepted Answers:
1472,

9) For which of the following 3-tuples of integers (a, b, c) do we have a solution to the system of simultaneous linear congruences: $n \equiv a \pmod 3$, $n \equiv b \pmod 4$, $n \equiv c \pmod{12}$? *1 point*

- [ ] $(0, 2, 6)$,
- [ ] $(1, 1, 5)$,
- [ ] $(1, 3, 7)$,
- [ ] $(0, 0, 8)$,
- [ ] $(0, 1, 9)$,
- [ ] $(1, 1, 10)$.

No, the answer is incorrect.
Score: 0
Accepted Answers:
$(0, 2, 6)$,
$(1, 3, 7)$,
$(0, 1, 9)$,

10) For which of the following 4-tuples of integers (a, b, c, d) do we have a solution to the system of simultaneous linear congruences: $n \equiv a \pmod 2$, $n \equiv b \pmod 3$, $n \equiv c \pmod 4$, $n \equiv d \pmod 6$? *1 point*

- [ ] $(1, 0, 3, 2)$,
- [ ] $(0, 1, 0, 4)$,
- [ ] $(0, 0, 3, 0)$,
- [ ] $(1, 1, 2, 1)$,
- [ ] $(0, 1, 2, 5)$,
- [ ] $(1, 2, 3, 5)$.

No, the answer is incorrect.
Score: 0
Accepted Answers:
$(0, 1, 0, 4)$,
$(1, 2, 3, 5)$.