

Name _____

4-6

Lesson Master

Questions on SPUR Objectives
See Student Edition pages 275–277 for objectives.

SKILLS

Objective B

1. Name two integers, one positive and one negative, that are congruent to 17 modulo 5.

In 2–5, name the smallest positive integer that makes the congruence true.

2. $w \equiv 184 \pmod{7}$ _____
3. $x \equiv -123 \pmod{11}$ _____
4. $y \equiv 25,244 \pmod{9}$ _____
5. $z \equiv 1601 \pmod{201}$ _____
6. Determine into which set, R_0 , R_1 , R_2 , R_3 , R_4 , or R_5 modulo 6, the given integer falls.
- a. 794 _____
- b. 1723 _____
- c. -409 _____
- d. 10,044 _____

PROPERTIES

Objective G

7. Suppose $q - r$ is a multiple of n . What can you conclude about q and r ?

8. If $a \equiv b \pmod{m}$ and $17 \equiv 23 \pmod{m}$, what congruence statement can you make about $17a$?

In 9–11, rewrite in the language of congruences.

9. p is 3 more than a multiple of 7. _____
10. $t = 45^\circ + 90k$ where k is an integer. _____

USES

Objective K

11. Some companies require that you be an employee for 90 calendar days before receiving benefits. If Judy starts working for such a company on a Monday, what day of the week will it be when she becomes eligible for benefits?

In 12 and 13, find the check digit X_c at the end of the given ISBN-10 number.

12. one edition of J. D. Salinger’s *Catcher in the Rye*: 0-316-76948- X_c _____
13. one edition of Charles Dickens’ *Great Expectations*: 0-312-08082- X_c _____

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