Name_____ Date_____ Period_____

**LESSON 6-7 · SESSION 2 · PRACTICE · FORM B**

# Multiples and Least Common Multiple

Learning target – I can list multiples of two numbers and find their least common multiple. · 6.NS.B.4

**REMEMBER**

- A **multiple** is what you get when you skip-count by a number: 6, 12, 18, 24, …
- The **least common multiple (LCM)** is the smallest multiple above 0 that two numbers share.
- Watch out: 8 × 10 = 80 is a common multiple, but it is **not always the least**.

**WORKED EXAMPLE**

A library van visits every 8 days and an art cart every 10 days. Both visit today. When do both visit again?

**Step 1** Multiples of 8: 8, 16, 24, 32, 40.

**Step 2** Multiples of 10: 10, 20, 30, 40.

**Step 3** The first number on both lists is 40.

**Answer** **LCM = 40, so in 40 days**

**WORDS** **multiple** *(múltiplo)* · **common multiple** *(múltiplo común)* · **least common multiple** *(mínimo común múltiplo)*

## PRACTICE

*show your work · label units*

**1.** Find the LCM of each pair.

**a.** 6 and 15 _____

**b.** 10 and 25 _____

**c.** 3 and 8 _____

**d.** 12 and 16 _____

**2.** **Two Ferries.** A river ferry reaches a dock every 12 minutes. A harbor ferry reaches the same dock every 18 minutes. Both are at the dock now.

**a.** Multiples of 12: _____ Multiples of 18: _____

**b.** Minutes until both ferries are there again: _____ min

**3.** **Juice and Straws.** Juice boxes come in packs of 6. Straws come in sleeves of 8. A store wants the same number of juice boxes and straws.

**Hint** *Skip-count by 8 and stop at a multiple of 6.*

**a.** Fewest juice boxes and fewest straws: _____

**b.** Packs of juice ___ Sleeves of straws ___

*Show your work.*

**4. Club Days.** Art club meets every 4 days. Chess club meets every 7 days. Both met today. In how many days will both meet again?

**Hint** *List the meeting days for each club.*

*Show your work.*

**Answer**_____ days

**5. Tess's Shortcut.** Tess says the LCM of 18 and 24 is 432 because 18 × 24 = 432. Is she right? Give the LCM.

**Hint** *Skip-count by 24 and test each number.*

*Show your work.*

**LCM**_____

**6. Two Machines.** Machine A stamps every 20 seconds. Machine B stamps every 35 seconds. They both stamped just now.

**Hint** *Divide the LCM by each machine's time.*

**a.** Seconds until they stamp together again: _____ s

**b.** Stamps by A ___ Stamps by B ___ (up to that time)

*Show your work.*

**7. Three Lists.** Find the least common multiple of 3, 4, and 6.

**Hint** *Skip-count by 6 and look for a multiple of 4.*

*Show your work.*

**LCM**_____

**8. Two Chimes.** One chime sounds every 8 minutes. Another sounds every 20 minutes. Both sound at 8:00 a.m.

**a.** Find the LCM of 8 and 20. _____

**b.** When do both sound together next? _____

**c.** How many times do they sound together after 8:00 and up to 10:00 a.m.? _____

*Show your work.*

## FIND THE ERROR

*explain the mistake, then fix it*

**9. Elena's Work.** Elena listed multiples of 6 and of 8. She said the LCM is 48, the second number that appeared on both lists. Explain her mistake. Then give the correct LCM.

_____

_____

_____

## TEST PRACTICE

*choose the best answer*

**10.** The LCM of 3 and 5 is –

**A** 1 **B** 8 **C** 15 **D** 30

**11.** Which number is a multiple of 9?

**A** 3 **B** 19 **C** 29 **D** 36

**SELF-CHECK CODE** *find your answer · copy its letter into that problem's box · spell a math word*

| 24<br>U | 40<br>N | 140<br>I | 36<br>Q | 12<br>E | 72<br>T | 6<br>X | 8:40<br>T | 28<br>O | 432<br>Z |
|---|---|---|---|---|---|---|---|---|---|

| #2b | #3a | #4 | #5 | #6a | #7 | #8a | #8b |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| CHECK YOURSELF | ☐ I can do this on my own | ☐ I need a little help | ☐ I have a question about #___ |
|---|---|---|---|