Just In Time Quick Check

Standard of Learning (SOL) 5.11

Strand: Measurement and Geometry

Standard of Learning (SOL) 5.11

The student will solve practical problems related to elapsed time in hours and minutes within a 24-hour period.

Grade Level Skills:

- Solve practical problems related to elapsed time in hours and minutes within a 24-hour period:
 - when given the beginning time and the ending time, determine the time that has elapsed
 - when given the beginning time and amount of elapsed time in hours and minutes, determine the ending time
 - when given the ending time and the elapsed time in hours and minutes, determine the beginning time.

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

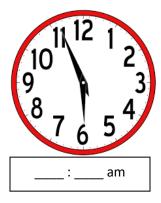
Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - 5.11 What Time Is It? (Word) / PDF Version
- VDOE Co-Teaching Mathematics Instruction Plans (MIPS)
 - o <u>5.11 Elapsed Time</u> (Word) / <u>PDF Version</u>
- VDOE Algebra Readiness Remediation Plans
 - o Time Part 1 (Word) / PDF
 - o Time Part 2 (Word) / PDF
- VDOE Rich Mathematical Tasks: Bus A or Bus B Task
 - o 5.11 Bus A or Bus B Task Template (Word) / PDF Version
 - o 5.11 Bus A or Bus B Student Version of Task (Word) / PDF Version
 - o 5.11 Bus A or Bus B Anchor Papers (Word) / PDF Version
 - 5.11 Bus A or Bus B Anchor Papers Scoring Rationales (Word) / PDF Version

Supporting and Prerequisite SOL: 4.9, 3.9a, 3.9b, 3.9c

SOL 5.11 - Just in Time Quick Check

- 1. Madison started her homework at 4:00 p.m. She worked on it for 2 hours and 27 minutes. What time was it when Madison finished her homework?
- 2. A family left Roanoke, Virginia at 7:25 a.m. and arrived in Richmond at 2:22 p.m. What was this family's total travel time?
- 3. Clare's volleyball game ended at 6:30 p.m. It took 2 hours and 48 minutes to play the game. What time did Clare's volleyball game begin?
- 4. Fifth grade students from Garden City Elementary School left for a field trip at the time shown on the clock.

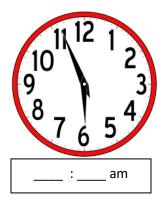


They returned from the field trip at 10:24 p.m. How long were the students on this field trip?

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Common Errors/Misconceptions and their Possible Indications

- 1. Madison started her homework at 4:00 p.m. She worked on it for 2 hours and 27 minutes. What time was it when Madison finished her homework?
 - Some students may have difficulty with this problem because they count the beginning time as one hour instead of the space between the times. Teachers may wish to show students how to count the hops on a number line to help them see it as the passage of time that represents elapsed time.
- 2. A family left Roanoke, Virginia at 7:25 a.m. and arrived in Richmond at 2:22 p.m. What was this family's total travel time?
 - Some students may have difficulty with this problem due to a lack of understanding the relationship between minutes and hours. Teachers may wish to have students practice elapsed time with a focus just on hours and then a focus just on minutes. Teachers may also wish to take a couple of times within the school day with students and determine the elapsed time between these times making this skill more relevant.
- 3. Clare's volleyball game ended at 6:30 p.m. It took 2 hours and 48 minutes to play the game. What time did Clare's volleyball game begin?
 - Students may struggle with this problem because the beginning time is unknown. It requires them to work backwards from the end time. Students struggling with this type of problem may benefit from using various organizers, including an open number line, a moveable demonstration clock, or a t-chart.
- 4. Fifth grade students from Garden City Elementary School left for a field trip at the time shown on the clock.



They returned from the field trip at 10:24 p.m. How long were the students on this field trip?

Students may struggle with this problem because they must read the analog clock accurately before they can determine the elapsed time. This problem is particularly challenging because of the minute hand placement. Some students may view the time as 6:55 instead of as 5:55. Teachers may wish to have students who have difficulty telling time accurately on an analog clock practice with a moveable demonstration clocks to better refine their telling time skills.