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UNIT 5 LESSON 10

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| AIM: | SWBAT solve percent problems  |

**THINK ABOUT IT!**

Mr. Davis’ truck holds a certain amount of gas. He went to the gas station when his tank had 8 gallons left, which is 25% of a full tank. How many gallons of gas does his truck’s gas tank hold when it is full? Show your work or explain your thinking.

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Key Point

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| We can use benchmark \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to find an unknown \_\_\_\_\_\_\_\_\_\_. |

**Interaction with New Material**

Example 1) Martin and Cayla spent the weekend cleaning up the Connecticut River near Hartford by picking up trash along the river bank. Of all the trash that they collected, 60% of it was recyclable. If 33 pounds of the trash was recyclable, how many total pounds of trash did they pick up over the weekend?

**PARTNER PRACTICE**

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| *Bachelor Level* |

1. 10% of what number is 8? Use a double number line diagram to **show your work**.

CFS for top quality work

* **Annotations**: circle starting percent/total/what you’re solving for
* **Model**: accurate, units/values included, scaled correctly
* All work is shown
* Answer statement is BOXED

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1. Ms. Johnson brought 50% of her class outside at lunch for showing over 10% growth on their weekly quiz. She brought 20 students outside at lunch. Circle each statement below that applies to this scenario. **Select all that apply.**

CFS for top quality work

* **Annotations**: circle starting percent/total/what you’re solving for
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* All work is shown
* Answer statement is BOXED

a) There are fewer than 20 students in Ms. Johnson’s class

b) There are more than 20 students in Ms. Johnson’s class

c) There are 2 students in Ms. Johnson’s class

d) There are 10 students in Ms. Johnson’s class

e) There are 40 students in Ms. Johnson’s class

f) There are 200 students in Ms. Johnson’s class

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| *Master Level* |

1. A six foot tall person is 30% the length of an average Great White Shark. Is it reasonable for the Great White Shark to be 2 feet long? Explain.

CFS for top quality work

* **Annotations**: circle starting percent/total/what you’re solving for
* **Model**: accurate, units/values included, scaled correctly
* All work is shown
* Answer statement is BOXED

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**INDEPENDENT PRACTICE**

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| *Bachelor Level* |

1. 54 is 20% of what total? Use a double number line diagram to **show your work.**

CFS for top quality work

* **Annotations**: circle starting percent/total/what you’re solving for
* **Model**: accurate, units/values included, scaled correctly
* All work is shown
* Answer statement is BOXED

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1. Fernando only read 20 pages of his independent reading book over the weekend, which was 80% of his book. Read each statement below and decide whether it is “true” or “false.”

CFS for top quality work

* **Annotations**: circle starting percent/total/what you’re solving for
* **Model**: accurate, units/values included, scaled correctly
* All work is shown
* Answer statement is BOXED

|  |  |  |
| --- | --- | --- |
| Statement | True | False |
| Fernando’s book is less than 20 pages long |  |  |
| Fernando’s book is 16 pages long |  |  |
| Fernando read 16 pages of his book |  |  |
| Fernando’s book is 25 pages long |  |  |
| Fernando read 25 pages of his book |  |  |

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| *Master Level* |

1. Jaden gave away 42 stickers to his friends, which was 60% of his personal collection.
	1. How many stickers did Jaden originally have?

CFS for top quality work

* **Annotations**: circle starting percent/total/what you’re solving for
* **Model**: accurate, units/values included, scaled correctly
* All work is shown
* Answer statement is BOXED

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* 1. How many stickers did Jaden keep for himself?

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1. Erin got 75% of the questions on her last test correct. She got 24 of all the questions correct. She wanted to figure out how many questions were on the test in all. She did some calculations and found that there are 18 questions in all. Did she find the correct total amount? Explain why she is or is not correct. If she is not correct, also explain the mistake in her thinking.

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1. The Bridgeport 5th and 6th graders went on a field trip to the zoo. Below, you can see the results of a survey that asked students about their favorite animal at the zoo. 80% of all the students who went on the trip answered the survey question. How many students went on the trip?

|  |  |
| --- | --- |
| **Animal** | **Number of Students** |
| Lion | 95 |
| Seal | 28 |
| Rattlesnake  | 82 |
| Giraffe | 83 |

1. An Apple Store only let in 144 people to buy the new iPhone 5. The **other 90%** went home crying. How many people were on line for the iPhone?
	1. 16
	2. 129
	3. 160
	4. 1,440

|  |
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| *PhD Level* |

1. Alphonso and his friends had a free-throw shooting competition. Alphonso made 8 free-throws, which was 80% of the number of free-throws his friend Jane made. Jane made 20% the number of free-throws that Adaeze made. And, Ms. Murray made 40% of the number of free-throws that Adaeze made. How many free-throws did Ms. Murray make?

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**U5L10 EXIT TICKET**

|  |  |  |  |
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| Self-assessment | I mastered the learning objective today. | I am almost there.  | Need more practice and feedback. |
| Teacher feedback | You mastered the learning objective today. | You are almost there.  | You need more practice and feedback. |

1. A serving size of Oreo cookies is 3 cookies, which is 20% of a box of cookies. How many cookies come in a box? **Show your work.**

CFS for top quality work

* **Annotations**: circle starting percent/total/what you’re solving for
* **Model**: accurate, units/values included, scaled correctly
* All work is shown
* Answer statement is BOXED

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cookies

1. Jackie has $36 in her purse. This is 75% of all the money she has from babysitting this week. Ms. DePass thinks Jackie has $27 in total from babysitting. Explain why Ms. DePass’s claim is unreasonable, and state the correct amount of money Jackie has made babysitting

CFS for top quality work

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* Answer statement is BOXED

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