PRACTICE: LESSON 11.1 – **SIMPLE** & **COMPOUND INTEREST** Name: _____

Learning Goal: I can use formulas to calculate **simple interest** and **compound interest** of different investments and loans. **Meta de Aprendizaje**: Puedo usar fórmulas para calcular el **interés simple** y el **interés compuesto** de diferentes inversiones y préstamos.	**Language Goal:** I can discuss with a partner how to use the formulas for **simple interest** and **compound interest** and then write an explanation. **Lenguaje Objetivo**: Puedo discutir con un compañero cómo usar las fórmulas de **interés simple** y **interés compuesto** y luego escribir una explicación.

Directions: Calculate the ***Account Total*** and the ***Interest*** for each problem.

1. A savings account earns **simple interest** at a rate of 2.5%. The account currently has $5,000. How much ***interest*** will be earned after 10 years? How much ***total*** money will be in the account after 10 years?

ANSWERS

Interest Earned:

Account Total:

2. A savings account earns **compound interest** at a rate of 2.5%. The account currently has $5,000. How much ***total*** money will be in the account after 10 years? How much ***interest*** will be earned after 10 years?

ANSWERS

Account Total:

Interest Earned:

3. A savings account earns **simple interest** at a rate of 7.25%. The account currently has $10,000. How much ***interest*** will be earned after 3 years? How much ***total*** money will be in the account after 3 years?

ANSWERS

Interest Earned:

Account Total:

4. A savings account earns **compound interest** at a rate of 7.25%. The account currently has $10,000. How much ***total*** money will be in the account after 3 years? How much ***interest*** will be earned after 3 years?

ANSWERS

Account Total:

Interest Earned:

5. Compare your answers from 1 through 4. Which type of interest rate earns more money, **simple interest** or **compound interest**?

   Answer: _____

6. How do you convert a percent to a decimal? _____

7. You want to buy a $5,000 car. You can get a 5-year loan at 9% **simple interest**. How much ***total*** will the car cost you after 5 years?

ANSWERS

Interest Owed:

Total Cost:

8. You want to buy a $5,000 car. You can get a 5-year loan at 9% **compound interest**. How much ***total*** will the car cost you after 5 years?

ANSWERS

Total Cost:

Interest Owed:

9. Your family wants to buy a house for $100,000. The mortgage will have a **simple interest** rate of 4.75%. The mortgage is for 30 years. How much ***total*** will the house cost your family after 30 years?

ANSWERS

Interest Owed:

Total Cost:

10. Your family wants to buy a house for $100,000. The mortgage will have a **compound interest** rate of 4.75%. The mortgage is for 30 years. How much ***total*** will the house cost your family after 30 years?

ANSWERS

Total Cost:

Interest Owed:

11. You want to buy a $15,000 car. You can get a four-year loan at 6.5% **simple interest**. How much ***total*** will the car cost you after 4 years?

ANSWERS

Interest Owed:

Total Cost:

12. You want to buy a $15,000 car. You can get a four-year loan at 6.5% **compound interest.** How much ***total*** will the car cost you after 4 years?

ANSWERS

Total Cost:

Interest Owed:

13. Holly is taking out a loan in the amount of $10,000. Her choices for the loan are a 4-year loan at 4% simple interest and a 6-year loan at 5% simple interest. What is the **difference** in the amount of ***interest*** Holly would have to pay for each of these two loans?

4-Year Loan	6-Year Loan
Interest Owed:	***Interest Owed:***

Final Answer: The Difference = _____

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14. Jack invested $15,000 in an account that pays 4% annual simple interest. Jack will not make any additional deposits or withdrawals. How much ***interest*** will Jack earn on his investment at the end of 3 years?

Answer: _____

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15. Nicolas has $650 to deposit into a savings account. He will deposit his money into an account which earns $3\frac{1}{4}\%$ interest compounded annually. Nicolas will not make any additional deposits or withdrawals. What will be the ***total balance*** in his savings account at the end of 2 years?

Answer: _____

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16. Jamie has $1,500 to deposit into a savings account. He will deposit his money into an account which earns $4\frac{2}{5}\%$ interest compounded annually. Jamie will not make any additional deposits or withdrawals. How much ***interest*** will Jamie earn at the end of 4 years.

Answer: _____

17. Olivia will deposit $1,530 in an account that earns 6% simple interest every year. Her sister Melinda will deposit $1,500 in an account that earns 8% interest compounded annually. The deposits will be made on the same day, and no additional money will be deposited or withdrawn from the accounts. How much ***total*** money will be in Olivia's account and Melinda's account at the end of 3 years?

Olivia's Account	Melinda's Account
Account Total: _____	***Account Total:*** _____

18. For **Problem 17**, what is the ***difference*** between the amount Olivia and Melinda have in their savings accounts?

Answer: _____

19. Juan wants to buy a car. He asks two different banks about their loans. The car costs $10,000. Bank 1 has a 5-year loan at 5.75% **simple interest**. Bank 2 has a 4-year loan at 5.5% **compound interest**. Which bank should Juan use to buy his car? How much money will he save by using the less expensive bank?

Bank 1	Bank 2
Total Cost:	***Total Cost:***

FINAL ANSWERS:
Which bank is better? _____

How much money will Juan save at the better bank? _____

20. When you ***borrow*** money, is the **interest** free money that you earn or extra money that you owe?

Circle one: Free money that you ***earn*** or Extra money that you ***owe***

21. When you ***invest*** money, is the **interest** free money that you earn or extra money that you owe?

Circle one: Free money that you ***earn*** or Extra money that you ***owe***

22. What do you have to do with the ***interest rate*** in order to use the formulas?

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