COMPOUND INTEREST
INVESTIGATION
DOUBLE YOUR MONEY – THE RULE OF 72

> ***Years to double your money = 72 ÷ Yearly interest rate***

In finance, the rule of 72 is used to estimate how many years it would take to double your investment.

For example, if the interest rate is 9%, then it would take 8 years (72 ÷ 9) to double your money.

Your task is to test the accuracy of this rule with various rates of simple and compound interest.

The quickest way to double your money is to fold it over and put it back in your pocket.
Will Rogers

Q1 – SIMPLE INTEREST RATE OF 12%
TIME TO DOUBLE YOUR MONEY = 72 ÷ 12 = 6 YEARS
Complete the table to find the final amount for different investments.

	PRINCIPAL INVESTED	SIMPLE INTEREST	FINAL AMOUNT
Example	*$200*	*I = P x R x T* *= 200 x 12/100 x 6* *= $144*	*A = P + I* *= 200 + 144* *= $344*
(a)	$1000		
(b)	$2000		
(c)	$3500		

Q2 – YOUR CHOICE OF SIMPLE INTEREST RATE = ...%
TIME TO DOUBLE YOUR MONEY = 72 ÷ .... = ... YEARS
Complete the table to find the final amount for different investments.

	PRINCIPAL INVESTED	SIMPLE INTEREST	FINAL AMOUNT
(a)	$..........		
(b)	$..........		
(c)	$..........		

Q3 – COMPOUND INTEREST RATE OF 12% COMPOUNDED YEARLY
TIME TO DOUBLE YOUR MONEY = 72 ÷ 12 = 6 YEARS
Complete the table to find the final amount for different investments.

	PRINCIPAL INVESTED	FINAL AMOUNT
Example	*$200*	$A = P \times (1 + r)^n$ $= 200 \times (1 + 0.12)^6$ $= \$394.76$
(a)	$..........	
(b)	$..........	
(c)	$..........	

Q4 – COMPOUND INTEREST RATE OF 12% COMPOUNDED HALF-YEARLY
TIME TO DOUBLE YOUR MONEY = 72 ÷ 12 = 6 YEARS
Complete the table to find the final amount for different investments.

	PRINCIPAL INVESTED	FINAL AMOUNT
Example	*$200*	$A = P \times (1 + r)^n$ $= 200 \times (1 + 0.06)^{12}$ $= \$402.44$
(a)	$..........	
(b)	$..........	
(c)	$..........	

Q5 – COMPOUND INTEREST RATE OF 12% COMPOUNDED QUARTERLY
TIME TO DOUBLE YOUR MONEY = 72 ÷ 12 = 6 YEARS
Complete the table to find the final amount for different investments.

	PRINCIPAL INVESTED	FINAL AMOUNT
(a)	$..........	
(b)	$..........	
(c)	$..........	

Q6 – COMPOUND INTEREST RATE OF 12% COMPOUNDED MONTHLY
TIME TO DOUBLE YOUR MONEY = 72 ÷ 12 = 6 YEARS
Complete the table to find the final amount for different investments.

	PRINCIPAL INVESTED	FINAL AMOUNT
(a)	$..........	
(b)	$..........	
(c)	$..........	

Q7. Try the Rule of 72 other interest rates.

Q8. What do you conclude about the accuracy of the Rule of 72?