

Student Worksheet 1

TI-30XB MultiView™: Divide & Conquer

W1

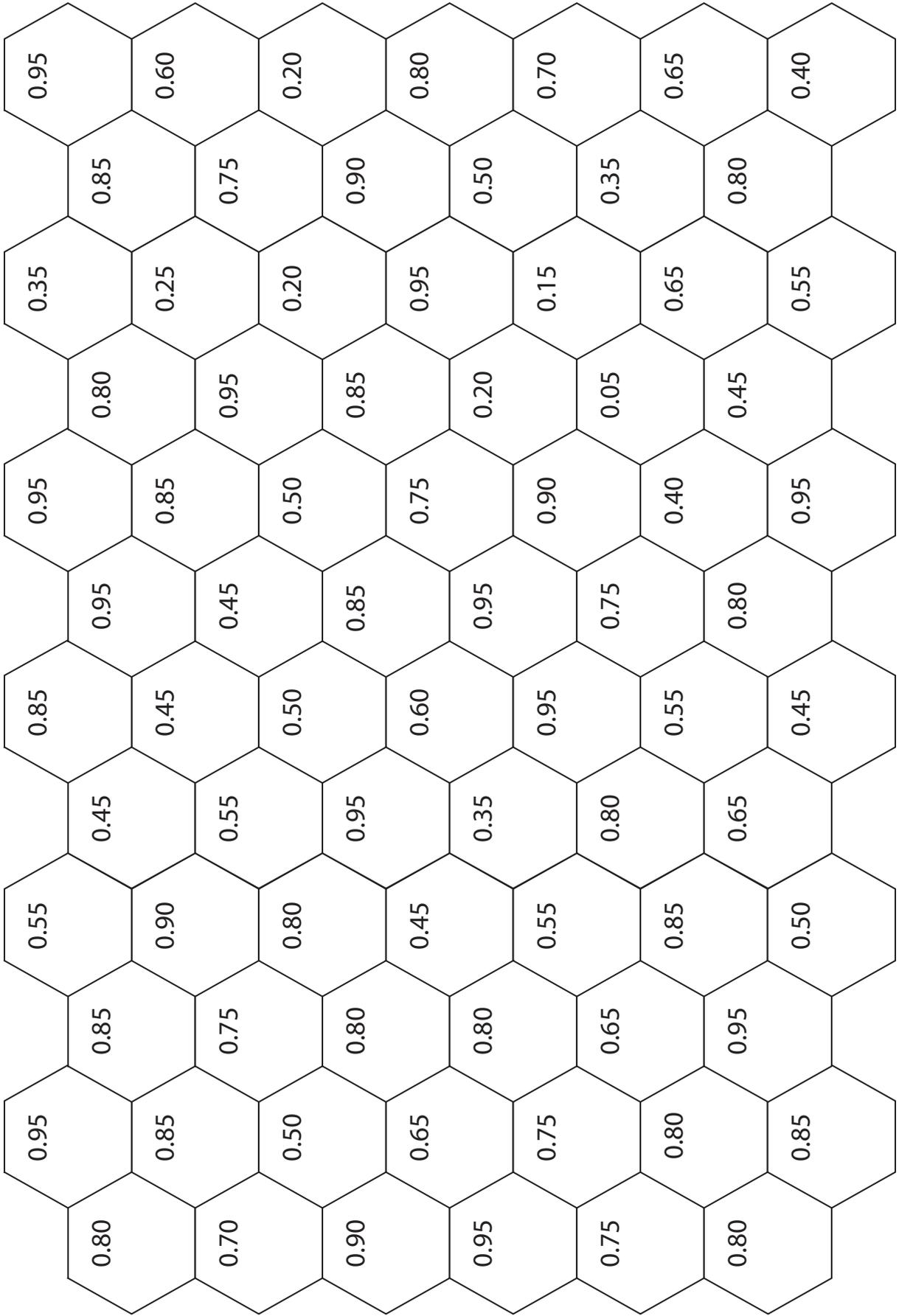
Name:

Instructions

The purpose of this is to discover what happens when a number is **multiplied** by another number between 0 and 1. The challenge is to get from one side of the board to the other with the maximum possible score at the end.

The rules of the challenge are as follows:

- Always progress from left to right.
- Start the game with 100 points.
- Choose a starting hexagon and multiply the number on the hexagon by your current point score (100pts). Record this equation.
- Move to the next adjacent hexagon. (Adjacent - must be touching)
Multiply the number on this hexagon by your current point score.
- Continue this process until you reach the other side of the board.
Write down your final point score.
- Remember, the aim of the game is to finish with the highest score.
- Record your progress by either shading your trail through the maze or by covering spaces with a counter.



Student Worksheet 2

TI-30XB MultiView™: Divide & Conquer

W2

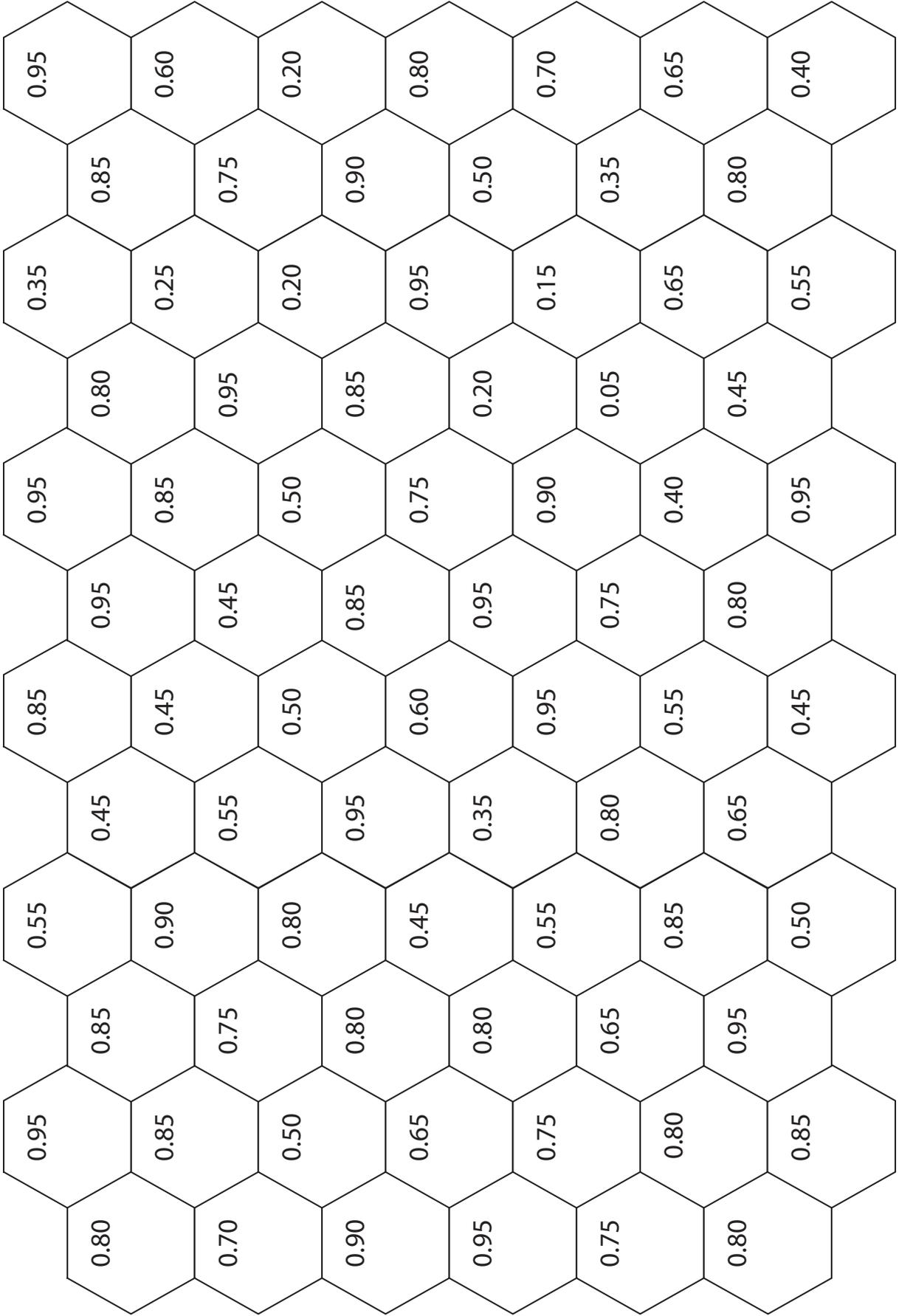
Name: _____

Instructions

The purpose of this is to discover what happens when a number is **divided** by another number between 0 and 1. The challenge is to get from one side of the board to the other with the maximum possible score at the end.

The rules of the challenge are as follows:

- Always progress from left to right.
- Start the game with 100 points.
- Choose a starting hexagon and multiply the number on the hexagon by your current point score (100pts). Record this equation.
- Move to the next adjacent hexagon. (Adjacent - must be touching)
Multiply the number on this hexagon by your current point score.
- Continue this process until you reach the other side of the board.
Write down your final point score.
- Remember, the aim of the game is to finish with the highest score.
- Record your progress by either shading your trail through the maze or by covering spaces with a counter.



Student Worksheet 3

TI-30XB MultiView™: Divide & Conquer

W3

Name: _____

Instructions

Write your own numbers on the puzzle. Use numbers between 0 and 1 only, quoting two decimal places. Try and make the game as challenging as possible. For your own reference, identify the best possible score (solution).

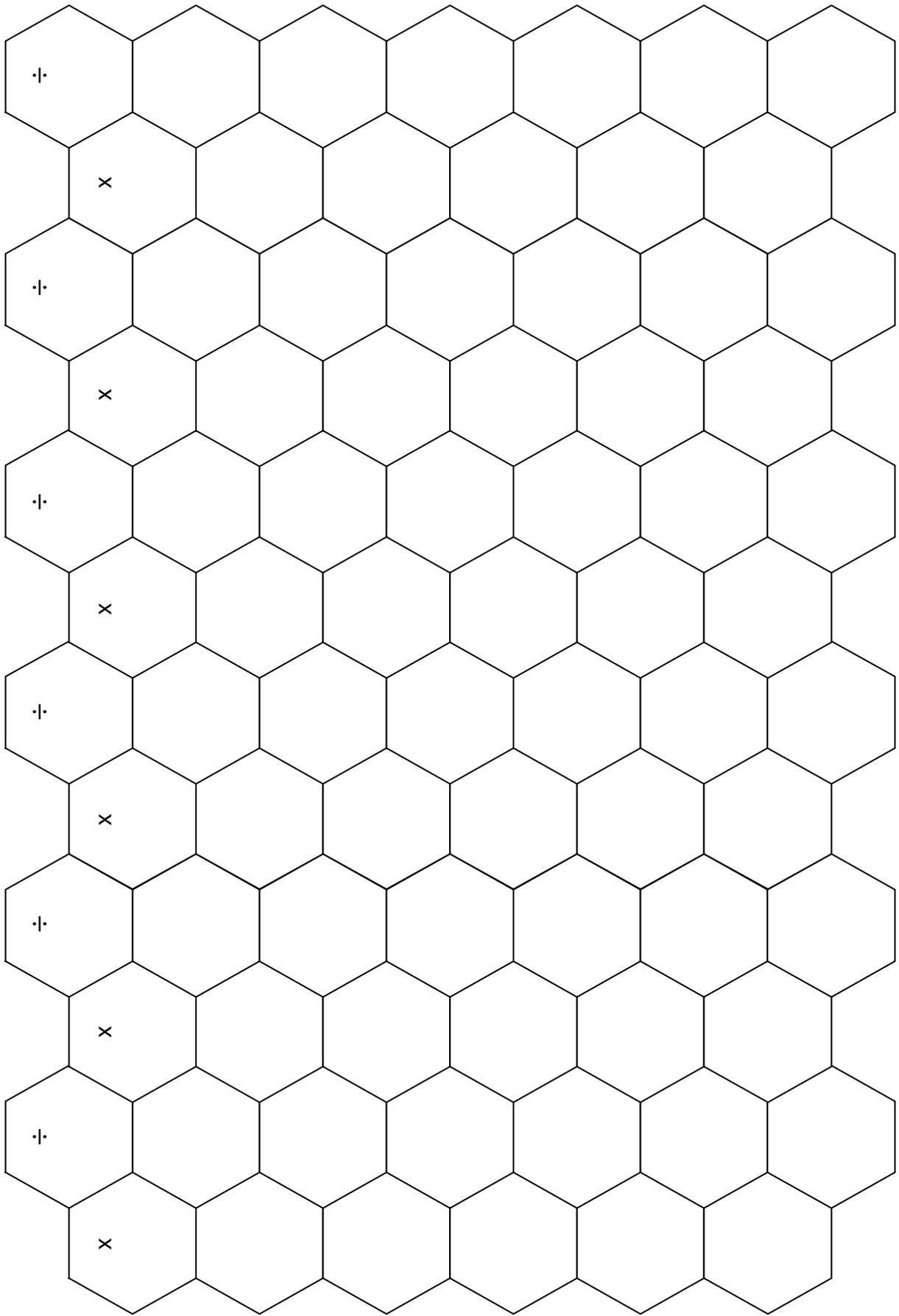
Note the change in rules with both multiplication and division being used alternately.

Participant Instructions

The challenge is to get from one side of the board to the other with a final score as close as possible to **20**.

The rules of the challenge are as follows:

- Always progress from left to right.
- Start the game with **10** points.
- Choose a starting hexagon and **multiply** the number on the hexagon by your current point score (10 pts). Record this equation.
- Move to the next adjacent hexagon. (Adjacent - must be touching) **Divide** your current score by the number on this hexagon. Multiplication and division alternate!
- Continue this process until you reach the other side of the board.
Write down your final point score.
- Remember, the aim of the game is to finish with a score as close as possible to **20**.
- Record your progress by either shading your trail through the maze or by covering spaces with a counter.



Assessment Task 1

TI-30XB MultiView™: Divide & Conquer

AT1

Name:

1. Trish has \$15.00; she is buying some batteries. Each battery costs less than \$1.00. What is the minimum number of batteries that Trish will be able to purchase? Use words to explain your answer.

2. Renee has \$20.00, she is buying some pencils. Each pencil costs less than \$0.50. What is the minimum number of pencils that Renee will be able to purchase?

3. Alex has used his savings to purchase some shares on a mining company. The original share price was \$1.00 per share. The price of the shares reduced to \$0.80 after the stock market crash. Would he be able to buy more or less shares now for the same amount of money?

Assessment Task 1

TI-30XB MultiView™: Divide & Conquer

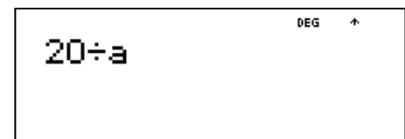
AT1

4. Mitchell has more friends than he has money. He wants to buy each of his friends a chocolate. Which one or more of the following chocolates should he consider purchasing:
- a) Chocolate frog: \$0.30 each
 - b) Chocolate egg: \$0.80 each
 - c) Small chocolate block: \$1.10 each
 - d) Large chocolate block: \$2.20 each

Explain your answer(s), use calculations to support your reasoning.

5. Paula is putting a single width, paving border around her swimming pool. The total distance around her pool is 20 metres. Paula did some calculations and found that she needed more than 20 pavers to complete the border. Explain how this is possible.

6. John divided 20 by a number in his calculator's memory. The result was a number larger than 40. Suggest three possible values for a - the quantity in the calculator's memory.



Assessment Task 1

TI-30XB MultiView™: Divide & Conquer

AT1

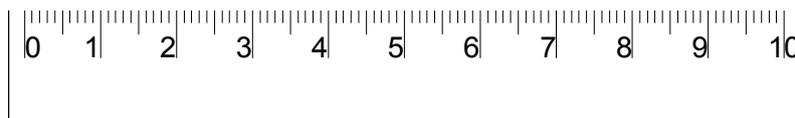
7. Keely typed the expression $1 \div x$ on her calculator.
(shown opposite)

Which of the following would produce the largest result:



- a) $x = 20$
- b) $x = 10$
- c) $x = 1$
- d) $x = 0.1$
- e) $x = 0.02$

8. Kelly has a 10cm long piece of wood. She is going to cut the wood into more than 10 equally sized pieces. Place a mark on the wood for her first cut.

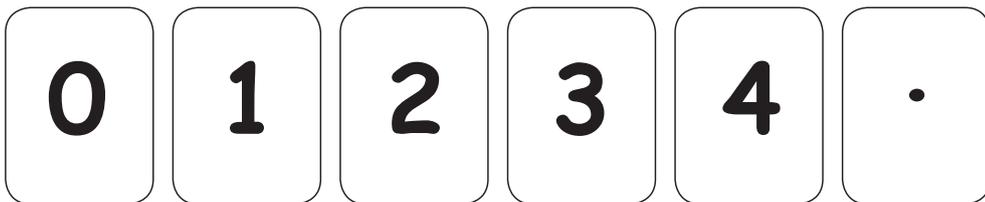


Assessment Task 2

TI-30XB MultiView™: Divide & Conquer

AT2

Name: _____

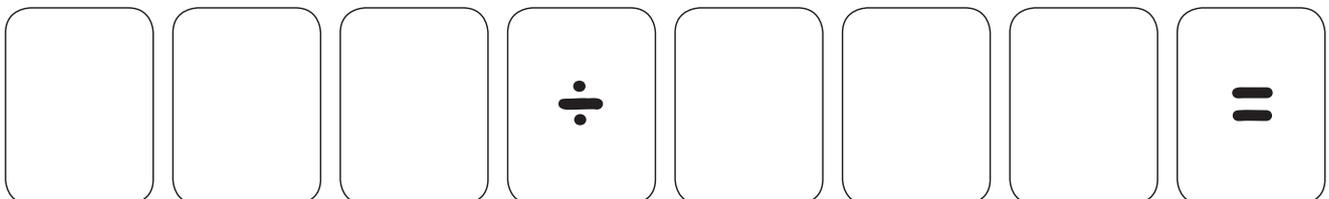


Cut out the cards provided and use them to complete the following tasks.

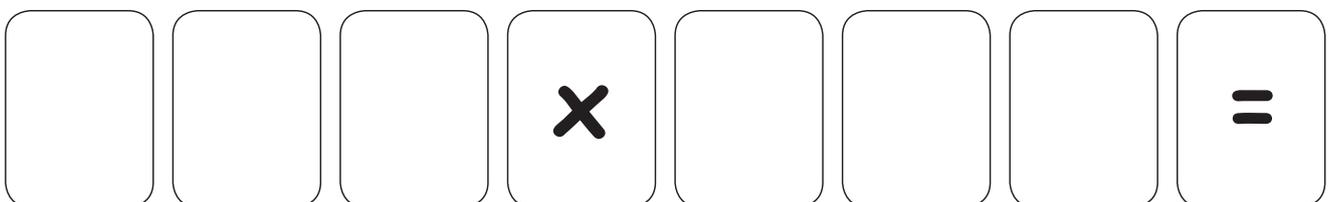
Rules:

- In each task all cards must be used.
- The cards do not need to be used to form the answer.
- There must always be a digit to the left **AND** right of the decimal place.

1. Place the cards in the spaces provided to produce the largest answer possible.



2. Place the cards in the spaces provided to produce the smallest answer possible.



3. Place the cards in the spaces provided to produce the largest answer possible.

