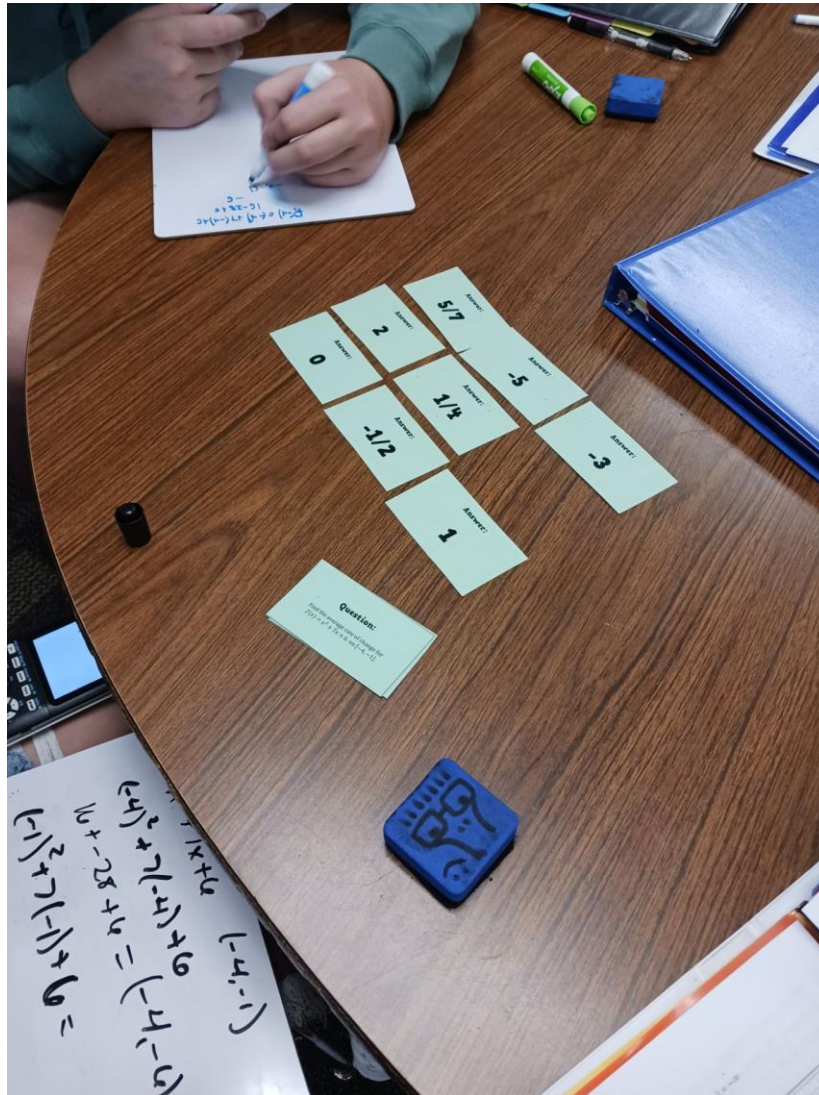


AVERAGE RATE OF CHANGE QUESTION STACK ACTIVITY



M + A + T + H = *love*


QUESTION STACK INSTRUCTIONS

1. Students lay out all of the question stack cards individually with the answer sides facing up. These cards form the "answer bank."
2. Choose one card to flip over. I have them lay this card on top of their laminated question stack template (see below) so they don't get confused.
3. Students work out the problem on the card they have just flipped over. When they have decided on an answer, they check the "answer bank" to see if their answer is there.
4. If their answer is in the answer bank, they are (most likely) correct. If it isn't, they know that they have made a mistake. They need to check their work and/or ask for help.
5. If the answer is in the answer bank, this card is flipped over to reveal a new question. This process repeats until the last question is flipped over.
6. As students progress through the activity, the answer bank shrinks with each question solved. I find that my students' confidence grows as the answer bank shrinks.
7. The question that ends up on the very top of the question stack will match the answer at the very bottom of the question stack.

Question Stack

Directions

1. Lay out each of the ten cards with the answer side facing up. These cards are your "answer bank."
2. Choose one card to begin with. Flip that card over and place it on the space to the right with the question side facing up.
3. Find the answer to the question shown on the card.
4. Search your remaining answer cards for the correct answer.
5. Place the answer card on top of the card to the right so that the correct answer is facing the original question.
6. You should now have a new question showing. Find the answer to that question.
7. Continue until you have no more cards remaining in your "answer bank."
8. Flip the stack of cards over to reveal your last question. The answer to this question should be the answer card on the other side of the stack. If this is not the case, you have made a mistake somewhere!



**Place first card
here with the
question side
facing up!**

[Download Copy of Question Stack Explanation Card for Students](#)

[Download Template to Create Your Own Question Stacks](#)

Question:

Find the average rate of change for
 $h(x) = -x^2 - 8x + 18$ on $[-8, 2]$.

Question:

Find the average rate of change for
 $f(x) = x^2 + 7x + 6$ on $[-4, -1]$.

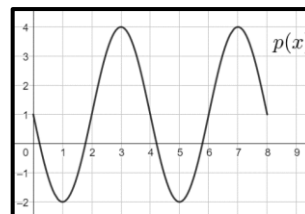
Question:

Find the average rate of change for $f(x)$ from
 $x = 1$ to $x = 8$.

x	-3	1	4	8
$f(x)$	0	-2	7	3

Question:

Find the average rate of change for $p(x)$ on $[6, 8]$.

**Question:**

Find the average rate of change for
 $j(x) = -5x - 7$ on $[-1, 1]$.

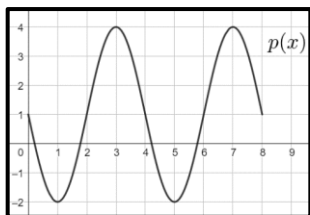
Question:

Find the average rate of change for $f(x)$ from
 $x = -3$ to $x = 1$.

x	-3	1	4	8
$f(x)$	0	-2	7	3

Question:

Find the average rate of change for $p(x)$ on $[3, 4]$.

**Question:**

Find the average rate of change for
 $g(x) = \sqrt{2x + 3}$ on $[3, 11]$.

Question:

Find the average rate of change for
 $g(x) = \frac{x-2}{x+4}$ on $[-2, -1]$.

Question:

Find the average rate of change for $f(x)$ from
 $x = 5$ to $x = 10$.

x	-2	1	5	10
$f(x)$	0	-2	8	5

Answer:

-2

Answer:

$-3/5$

Answer:

$5/7$

Answer:

2

Answer:

-5

Answer:

0

Answer:

-3

Answer:

$-1/2$

Answer:

1

Answer:

$1/4$