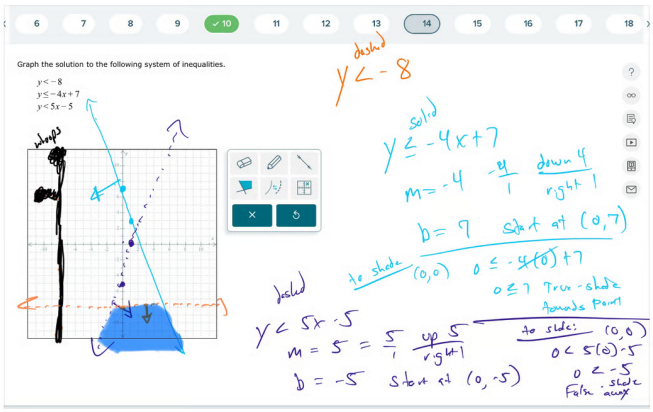
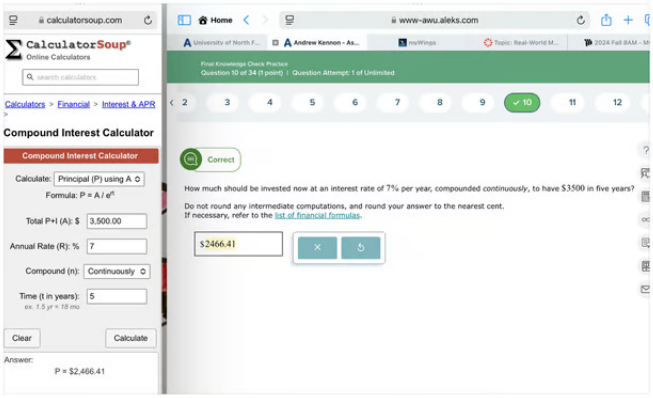
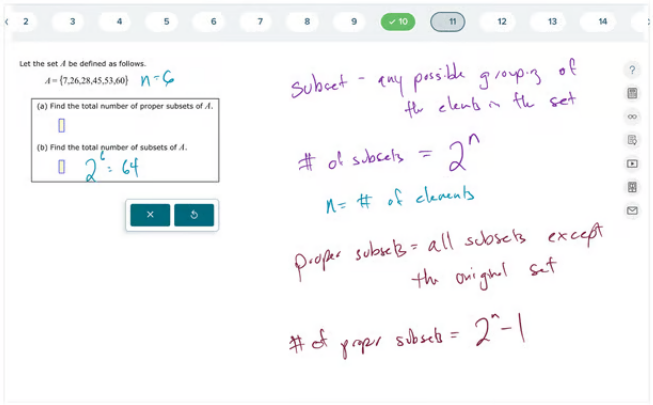
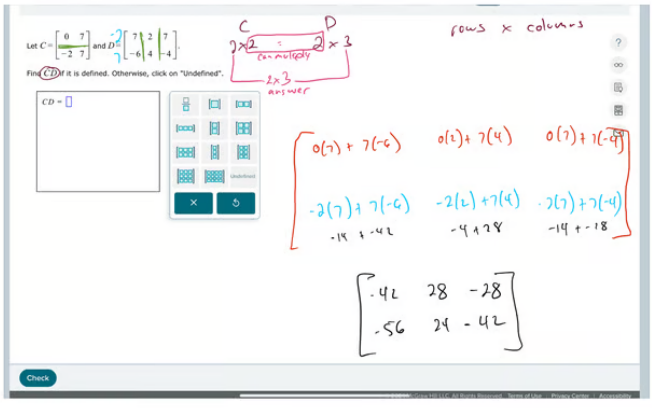
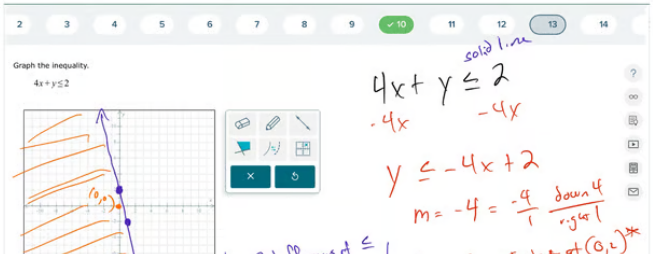
MGF Reviews /
1993 8AM (2024 Fall) Final Knowledge Check Practice

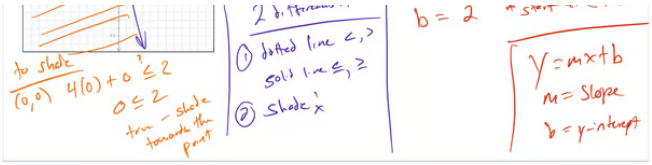


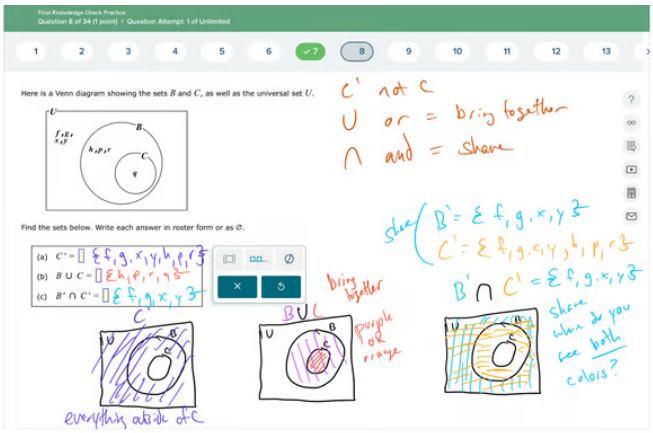


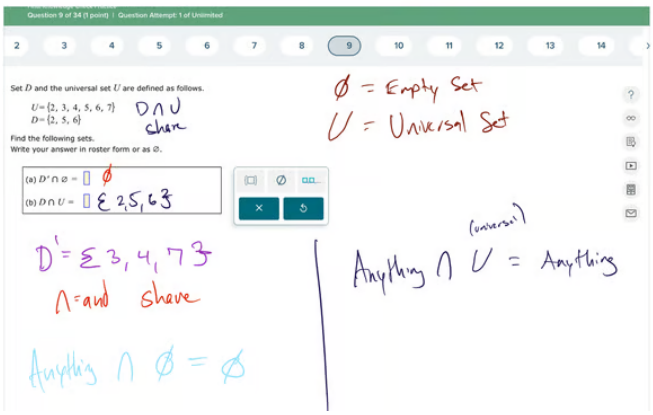


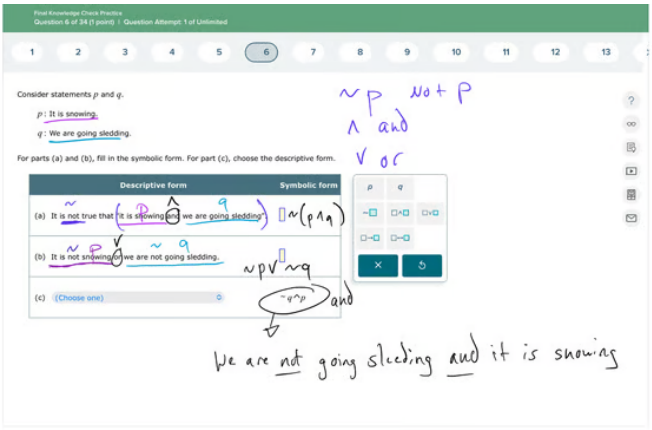


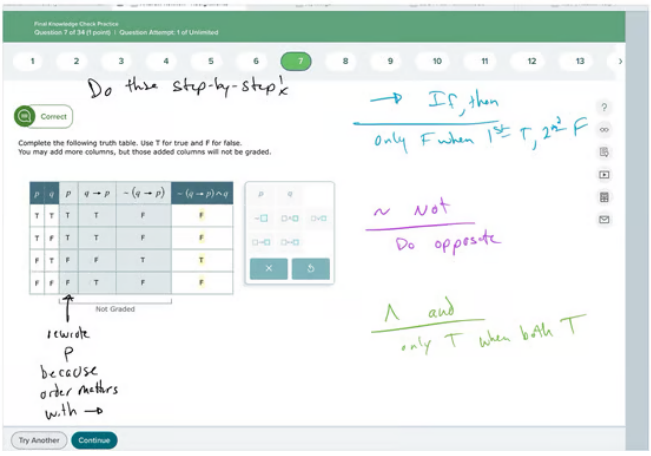


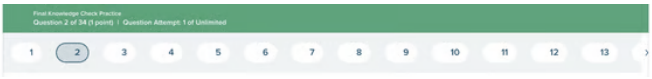

to shade
(0,0) 4(0) + 0 ≤ 2
0 ≤ 2
true - shade towards the point
2 different
① dotted line <, >
solid line ≤, ≥
② shade
b = 2
y = mx + b
m = slope
b = y-intercept

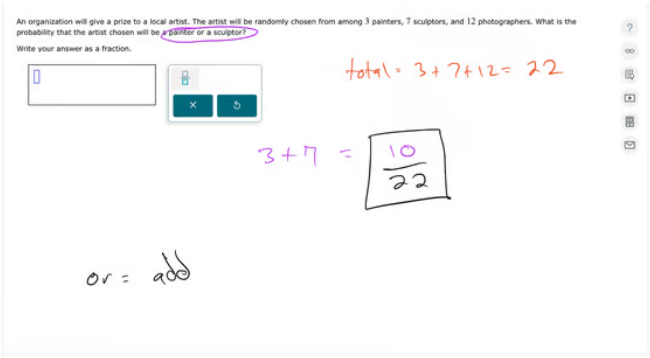

Question 8 of 34 (1 point) | Question Attempt: 1 of Unlimited
Here is a Venn diagram showing the sets B and C, as well as the universal set U.
Find the sets below. Write each answer in roster form or as ∅.
(a) C' =
(b) B ∪ C =
(c) B' ∩ C' =
C' not C
∪ or = bring together
∩ and = share
share
bring together
purple or orange
share when do you see both colors?
everything outside of C

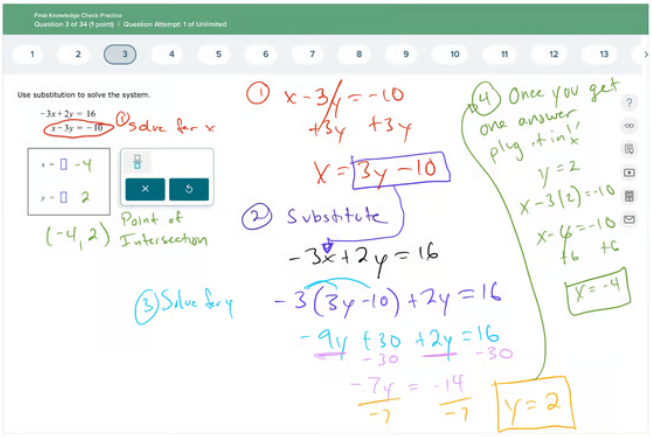

Question 9 of 34 (1 point) | Question Attempt: 1 of Unlimited
Set D and the universal set U are defined as follows.
U = {2, 3, 4, 5, 6, 7}
D = {2, 5, 6}
D ∩ U share
Find the following sets.
Write your answer in roster form or as ∅.
(a) D' ∩ ∅ =
(b) D ∩ U =
∅ = Empty Set
U = Universal Set
D' = {3, 4, 7}
∩ = and share
Anything ∩ ∅ = ∅
(universal)
Anything ∩ U = Anything

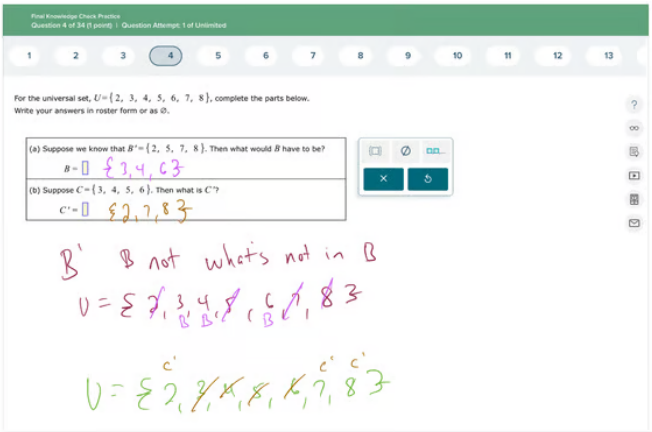

Question 6 of 34 (1 point) | Question Attempt: 1 of Unlimited
Consider statements p and q.
p : It is snowing.
q : We are going sledding.
For parts (a) and (b), fill in the symbolic form. For part (c), choose the descriptive form.
Descriptive form
Symbolic form
(a) It is not true that it is snowing and we are going sledding
(b) It is not snowing or we are not going sledding.
(c) (Choose one)
~p Not P
∧ and
∨ or
~(p∧q)
~p∨~q
~q∧p
We are not going sledding and it is snowing

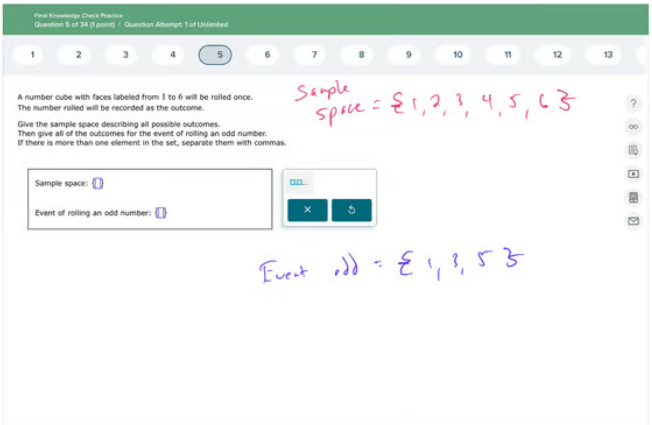

Question 7 of 34 (1 point) | Question Attempt: 1 of Unlimited
Do this step-by-step!
Correct
Complete the following truth table. Use T for true and F for false.
You may add more columns, but those added columns will not be graded.
Not Graded
rewrote P because order matters with →
→ If, then
only F when 1st T, 2nd F
~ Not
Do opposite
∧ and
only T when both T
Try Another
Continue


Question 2 of 34 (1 point) | Question Attempt: 1 of Unlimited


An organization will give a prize to a local artist. The artist will be randomly chosen from among 3 painters, 7 sculptors, and 12 photographers. What is the probability that the artist chosen will be a painter or a sculptor?
Write your answer as a fraction.
total = 3+7+12 = 22
3+7 = 10/22
or = add


Use substitution to solve the system.
-3x+2y=16
x-3y=-10
① solve for x
x = 3y-10
② Substitute
-3x+2y=16
③ Solve for y
-3(3y-10)+2y=16
-9y+30+2y=16
-7y=-14
y=2
④ Once you get one answer plug it in!
y=2
x-3(2)=-10
x-6=-10
+6 +6
x=-4
x = -4
y = 2
(-4, 2) Point of Intersection


For the universal set, U={2, 3, 4, 5, 6, 7, 8}, complete the parts below.
Write your answers in roster form or as ∅.
(a) Suppose we know that B'={2, 5, 7, 8}. Then what would B have to be?
B = {3,4,6}
(b) Suppose C={3, 4, 5, 6}. Then what is C'?
C' = {2,7,8}
B' B not whats not in B
U = {2,3,4,5,6,7,8}
U = {2,3,4,5,6,7,8}


A number cube with faces labeled from 1 to 6 will be rolled once.
The number rolled will be recorded as the outcome.
Give the sample space describing all possible outcomes.
Then give all of the outcomes for the event of rolling an odd number.
If there is more than one element in the set, separate them with commas.
Sample space:
Event of rolling an odd number:
Sample space = {1,2,3,4,5,6}
Event odd = {1,3,5}