Assessment : End of Unit Assessment

Problem 1

Standards Alignments

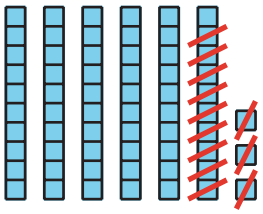
Addressing 2.NBT.B.5, 2.NBT.B.9

Narrative

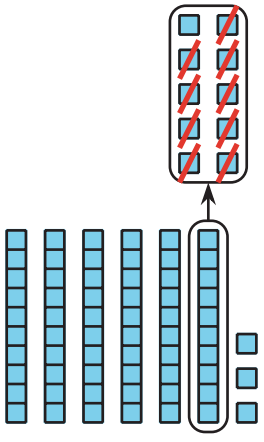
Students choose base 10 diagrams that match a given expression. Students may select A if they see the 9 ones crossed out from a ten and do not pay attention to the other 3 ones that are also crossed out. They may select D if they confuse the operations of addition and subtraction but D is the only picture that shows addition. If a student selects D and explains how that picture can be used to find $63 - 9$, then D is an acceptable answer.

Select 3 diagrams that show $63 - 9$.

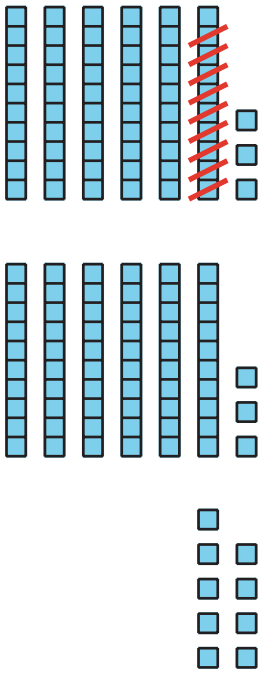
A.



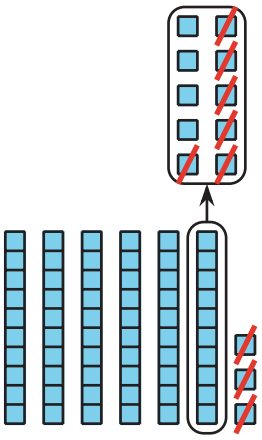
B.



D.



E.



Solution

["B", "C", "E"]

Problem 2

Standards Alignments

Addressing 2.NBT.B.5, 2.OA.A.1

Narrative

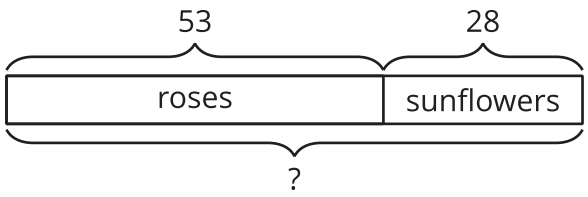
Students pick tape diagrams and equations that match a questionless story. Students who select responses B and D have likely incorrectly interpreted the story as an addition problem. Response C is for a different type of addition problem, a put together problem and students who select this option have not understood the story.

There are 53 roses. There 28 fewer sunflowers than roses. Select 2 representations for the story.

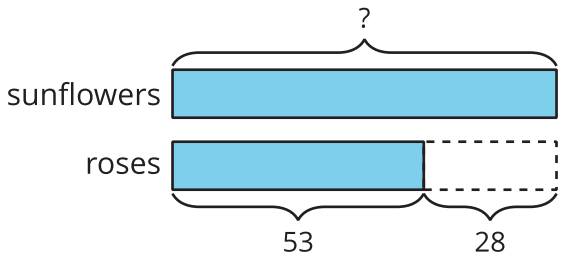
A. $53 - 28 =$ _

B. $53 + 28 =$ _

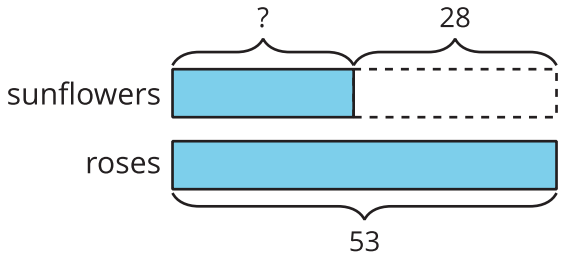
C.



D.



E.



Solution

["A", "E"]

Problem 3

Standards Alignments

Addressing 2.NBT.B.5, 2.OA.A.1

Narrative

Students solve a two-step Add To followed by Take From problem within 50. Regrouping is not needed for the first operation, but it is required for the second unless students use a method such as counting back or drawing a base-ten diagram.

Jada has 20 stickers. She gets 13 more stickers. How many stickers does she have? Jada gave 15 stickers to Noah. How many stickers does Jada have now? Show your thinking with drawings, words, or numbers.

Solution

Sample response: She has 33 after getting 13 more, $20 + 13 = 33$. She has 18 after giving 15 to Noah, $33 - 15 = 18$.

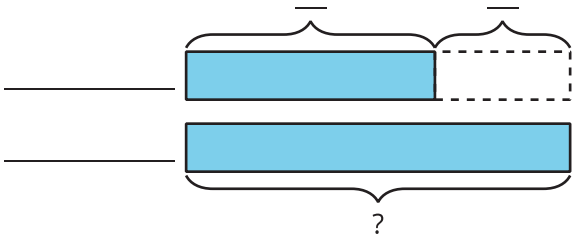
Problem 4

Standards Alignments

Addressing 2.NBT.B.5, 2.OA.A.1

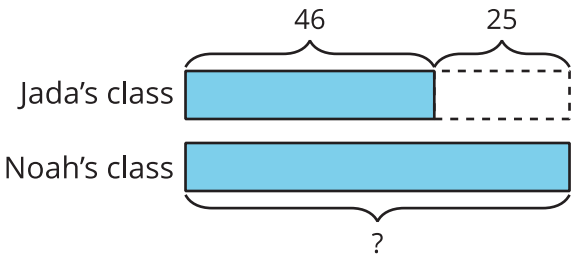
Jada's class made 46 paper snowflakes. Noah's class made 25 more snowflakes than Jada's class.

a. Complete the tape diagram to show the situation.



b. How many paper snowflakes did Noah's class make?

Solution



a.

b. 71, $46 + 20 = 66$, $66 + 5 = 71$.

Problem 5

Standards Alignments

Addressing 2.NBT.B.5

Narrative

Students find the value of an addition expression and a subtraction expression using a method of their choosing. Both problems involve composing or decomposing a ten. Students may draw a picture or use equations.

Complete each equation. Show your thinking with drawings, words, or numbers.

a. $23 + 19 =$ _____

b. $75 - 36 =$ _____

Solution

a. 42. Sample reasoning: $23 + 10 = 33$, $33 + 7 = 40$, $40 + 2 = 42$.

b. 39. Sample reasoning: $75 - 30 = 45$, $45 - 6 = 39$.

Problem 6

Standards Alignments

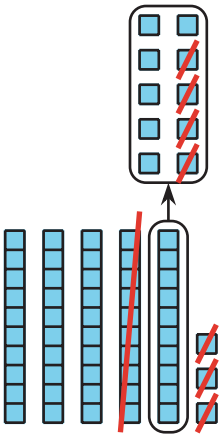
Addressing 2.NBT.B.5, 2.NBT.B.9, 2.OA.A.1

Narrative

Students have seen different ways to subtract where a ten is decomposed. The method presented

here breaks up a ten in advance and then the subtraction can take place directly. Students may write equations to show the work or they may explain in words.

Here is how Elena found $53 - 17$.



Explain Elena's calculation with drawings, words, or numbers.

Solution

Elena sees that to subtract 7 she needs some ones from a ten so she breaks up the ten. Then she takes away 7 ones and 1 ten. That's 17 she took away and there are 36 left so $53 - 17 = 36$.

Problem 7

Standards Alignments

Addressing 2.NBT.B.5

Narrative

Students evaluate addition and subtraction expressions using any method they like. Students are not expected to explain their reasoning though they may draw pictures or write equations.

Find the value of each expression.

a. $52 + 14$
b. $67 - 45$
c. $38 + 19$
d. $83 - 25$

Solution

a. 66
b. 22
c. 57
d. 58