

Focus Standards and Claim	Claim 3 3.OA.A.3
Stimulus	<p>Art Day!</p> <p>You are helping your 4th grade class organize an Art Day.</p> <p>There will be three stations:</p> <ul style="list-style-type: none">• Painting• Pottery• Chalk Art <p>You have two tasks. You will help create the supply list and the schedule for Art Day.</p> <p>Task 1: Supply List</p> <p>You need to make sure there are enough supplies at each station for everyone to participate. You will use the following information to create a list of art supplies for your class.</p> <ul style="list-style-type: none">• There are 24 students in your class.• Each student needs –<ul style="list-style-type: none">– 2 paint brushes for the Painting Station.– 3 pounds of clay for the Pottery Station.– 5 pieces of chalk for the Chalk Art Station. <p>Task 2: Schedule</p> <p>You also need to help plan the schedule for Art Day using the following information.</p> <ul style="list-style-type: none">• The day starts at 9:00 a.m. and ends at 2:00 p.m.• Your entire class will rotate through the three stations together.• The Break has to be at least 10 minutes.• The Break and Lunch together total 1 hour.• The three stations (Painting, Pottery, and Chalk Art) do not need to be the same amount of time, but each one has to be 30 minutes or longer.
Item Prompt	<p>You need 120 pieces of chalk for Art Day. Your teacher has 6 boxes of chalk. Each box has 18 pieces of chalk. Is this enough chalk for Art Day?</p> <p>Explain the steps you used to figure this out.</p>

Sample Responses

Sample Response A

What I did to figure this out was first I divided 18 into 10 and 8 and then divided the 8 into 4 and 4 to make it easier and multiplied 10, 4, and 4 to 60 and added them all up and did not get 120. Instead I got 108, so it is not enough.

$$6 \times 18 = 108$$

$$6 \times (10 + 8)$$

$$6 \times (10 + 4 + 4)$$

$$6 \times 10 = 60$$

$$6 \times 4 = 24$$

$$6 \times 4 = 24$$

$$\text{Added up} = 108$$

Sample Response B

$$24 = 20 + 4$$

$$20 \times 5 = 100$$

$$5 \times 4 = 20$$

$$100 + 20 = 120$$

$$6 = 5 + 1$$

$$5 \times 8 = 40$$

$$1 \times 8 = 8$$

$$40 + 8 = 48$$

$$\text{Check} - 120$$

$$18 = 10 + 8$$

$$6 \times 8 = 48$$

$$6 \times 10 = 60$$

$$48 + 60 = 108 \text{ (Not enough)}$$

Sample Response C	<p>18 pieces</p> <p>18 pieces</p> <p>18 pieces</p> <p>18 pices</p> <p>18 pieces</p> <p>18 pices</p> <p>There are 10 pieces of chalk left</p> <p>$5 + 5 + 5 + 5 + 5$</p> <p>$5 + 5 + 5 + 5 + 5$</p> <p>$5 + 5 + 5 + 5 + 5$</p> <p>$5 + 5 + 5 + 5 + 5$</p> <p>$5 + 5 + 5 + 5$</p>
Sample Response D	$108 = 36 + 36 + 36 = (18 + 18) + (18 + 18) + (18 + 18)$
Sample Response E	<p>$6 \times 18 = (6 \times 10 = 60) + (6 \times 8 = 48)$</p> <p>$60 + 48 = 108 < 120$</p> <p>It is not enough. The teacher need to buy one more box of chalk, because there is only 108 pieces and 120 are needed.</p>
Sample Response F	<p>$120 + 18 + 6 = 144 + 134 = 278$</p> <p>278</p>

Sample
Response G

6 box: $18 + 18 + 18 + 18 + 18 + 18$

$$2 \times 18 =$$

$$2 \times 10 = 20$$

$$2 \times 8 = 16$$

36

$$2 \times 18 = 36$$

$$2 \times 18 = 36$$

$$36 + 36 + 36 =$$

$$30 + 30 + 30 = 90$$

$$6 + 6 + 6 = 18$$

108

There are only 108 pieces there is not enough for art day

Need 120 pieces of chalk

Sample
Response H

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109 no becus we don't have enough