Supplemental Worksheet Problems To Accompany:

The Pre-Algebra Tutor: Volume 1
Section 4 – Adding Integers

Please watch Section 4 of this DVD before working these problems.

The DVD is located at:
http://www.mathtutordvd.com/products/item66.cfm
Part 1: Find The Absolute Value

1) Find the absolute value for:  5

2) Find the absolute value for:  −12

3) Find the absolute value for:  −34

4) Find the absolute value for:  1

5) Find the absolute value for:  −17

6) Find the absolute value for:  43

7) Find the absolute value for:  −37

8) Find the absolute value for:  −22

9) Find the absolute value for:  100
Part 2: Adding Positive Integers

10) Find the sum of the following positive integers.

\[ 1 + 8 \]

11) Find the sum of the following positive integers.

\[ 3 + 15 \]

12) Find the sum of the following positive integers.

\[ 11 + 3 \]

13) Find the sum of the following positive integers.

\[ 43 + 7 \]

14) Find the sum of the following positive integers.

\[ 10 + 22 \]

15) Find the sum of the following positive integers.

\[ 4 + 16 \]
Part 3: Adding Negative Integers

16) Find the sum of the following negative integers.

   \((-10) + (-6)\)

17) Find the sum of the following negative integers.

   \((-2) + (-21)\)

18) Find the sum of the following negative integers.

   \((-100) + (-6)\)

19) Find the sum of the following negative integers.

   \((-13) + (-13)\)

20) Find the sum of the following negative integers.

   \((-1) + (-1)\)

21) Find the sum of the following negative integers.

   \((-31) + (-8)\)
Part 4: Adding Integers with opposite signs
(negative to positive and positive to negative)

22) Find the sum of the following integers.

\((-7) + 8\)

23) Find the sum of the following integers.

\(10 + (-2)\)

24) Find the sum of the following integers.

\((-100) + 10\)

25) Find the sum of the following integers.

\((-31) + 12\)

26) Find the sum of the following integers.

\((-1) + 1\)

27) Find the sum of the following integers.

\(42 + (-9)\)
Part 5: Evaluate and solve for the following expressions

\[ a = |{-5}|, \quad b = 10, \quad c = -21, \quad d = |3|, \quad e = -15 \]

28) \( e + d \)

29) \( c + b \)

30) \( a + c + e \)

31) \( b + e \)

32) \( c + c \)

33) \( e + d + a + a \)
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Find the absolute value for: $5$</td>
<td>Begin</td>
</tr>
</tbody>
</table>

First, let's use the appropriate symbol to write the representation of the absolute value of 5 by using the absolute value bars.

$|5| = 5$

Next we recall that the absolute value of something simply means we only care about the distance or units the value is from zero on a number line. We don’t care about the sign of the value or direction we travel on the number line. The way to figure out the absolute value is we strip the original value off its sign regardless if it’s negative or not and the result is the value alone.

Ans: $5$
2) Find the absolute value for: $-12$

<table>
<thead>
<tr>
<th>[ -12 ]</th>
</tr>
</thead>
</table>

**Begin**

First, let’s use the appropriate symbol to write the representation of the absolute value of $-12$ by using the absolute value bars.

Next we recall that the absolute value of something simply means we only care about the distance or units the value is from zero on a number line. We don't care about the sign of the value or direction we travel on the number line. The way to figure out the absolute value is we strip the original value off its sign regardless if it’s negative or not and the result is the value alone.

**Ans: 12**
3) Find the absolute value for: \(-34\)

<table>
<thead>
<tr>
<th>Begin</th>
</tr>
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<tbody>
<tr>
<td>(-34)</td>
</tr>
<tr>
<td>(</td>
</tr>
</tbody>
</table>

First, let’s use the appropriate symbol to write the representation of the absolute value of -34 by using the absolute value bars.

Next we recall that the absolute value of something simply means we only care about the distance or units the value is from zero on a number line. We don’t care about the sign of the value or direction we travel on the number line. The way to figure out the absolute value is we strip the original value off its sign regardless if it’s negative or not and the result is the value alone.

\textbf{Ans:} 34
4) Find the absolute value for: 1

| 1 |

Begin

First, let's use the appropriate symbol to write the representation of the absolute value of 1 by using the absolute value bars.

Next we recall that the absolute value of something simply means we only care about the distance or units the value is from zero on a number line. We don't care about the sign of the value or direction we travel on the number line. The way to figure out the absolute value is we strip the original value off its sign regardless if it's negative or not and the result is the value alone.

Ans: 1
5) Find the absolute value for: \(-17\)

<table>
<thead>
<tr>
<th>Begin</th>
</tr>
</thead>
<tbody>
<tr>
<td>First, let's use the appropriate symbol to write the representation of the absolute value of -17 by using the absolute value bars.</td>
</tr>
<tr>
<td>Next we recall that the absolute value of something simply means we only care about the distance or units the value is from zero on a number line. We don’t care about the sign of the value or direction we travel on the number line. The way to figure out the absolute value is we strip the original value off its sign regardless if it’s negative or not and the result is the value alone.</td>
</tr>
<tr>
<td>Ans: 17</td>
</tr>
</tbody>
</table>
6) Find the absolute value for: 43

| 43 |

Begin

First, let's use the appropriate symbol to write the representation of the absolute value of 43 by using the absolute value bars.

Next we recall that the absolute value of something simply means we only care about the distance or units the value is from zero on a number line. We don’t care about the sign of the value or direction we travel on the number line. The way to figure out the absolute value is we strip the original value off its sign regardless if it’s negative or not and the result is the value alone.

**Ans: 43**
7) Find the absolute value for: \(-37\)

<table>
<thead>
<tr>
<th>Begin</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\vert -37 \vert)</td>
</tr>
<tr>
<td>(\vert -37 \vert = 37)</td>
</tr>
</tbody>
</table>

First, let’s use the appropriate symbol to write the representation of the absolute value of -37 by using the absolute value bars.

Next we recall that the absolute value of something simply means we only care about the distance or units the value is from zero on a number line. We don’t care about the sign of the value or direction we travel on the number line. The way to figure out the absolute value is we strip the original value off its sign regardless if it’s negative or not and the result is the value alone.

**Ans: 37**
8) Find the absolute value for: $-22$

<table>
<thead>
<tr>
<th>Begin</th>
</tr>
</thead>
</table>

First, let's use the appropriate symbol to write the representation of the absolute value of $-22$ by using the absolute value bars.

Next we recall that the absolute value of something simply means we only care about the distance or units the value is from zero on a number line. We don’t care about the sign of the value or direction we travel on the number line. The way to figure out the absolute value is we strip the original value off its sign regardless if it’s negative or not and the result is the value alone.

Ans: 22
9) Find the absolute value for: 100

| 100 |

Begin

First, let’s use the appropriate symbol to write the representation of the absolute value of 100 by using the absolute value bars.

Next we recall that the absolute value of something simply means we only care about the distance or units the value is from zero on a number line. We don’t care about the sign of the value or direction we travel on the number line. The way to figure out the absolute value is we strip the original value off its sign regardless if it’s negative or not and the result is the value alone.

Ans: 100
10) Find the sum of the following positive integers.

<table>
<thead>
<tr>
<th>Begin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 + 8</td>
</tr>
</tbody>
</table>

The first thing is to realize that we are adding two positive integers. Recall that whenever we add two positive integers, our result will always be positive. So we now know what sign our result will be.

Next we recall that adding two positive integers is just like the addition we have been doing up to this point. We simply add the two numbers and the result is your answer.

**Ans: 9**
<table>
<thead>
<tr>
<th><strong>11)</strong> Find the sum of the following positive integers.</th>
<th><strong>Begin</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>$3 + 15$</td>
<td>The first thing is to realize that we are adding two positive integers. Recall that whenever we add two positive integers, our result will always be positive. So we now know what sign our result will be.</td>
</tr>
<tr>
<td>$(\text{positive}) + (\text{positive}) = \text{positive}$</td>
<td>Next we recall that adding two positive integers is just like the addition we have been doing up to this point. We simply add the two numbers and the result is your answer.</td>
</tr>
<tr>
<td>$3 + 15 = 18$</td>
<td><strong>Ans:</strong> 18</td>
</tr>
</tbody>
</table>
12) Find the sum of the following positive integers.

<table>
<thead>
<tr>
<th>[11 + 3]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[\text{Begin}]</td>
</tr>
</tbody>
</table>

The first thing is to realize that we are adding two positive integers. Recall that whenever we add two positive integers, our result will always be positive. So we now know what sign our result will be.

Next we recall that adding two positive integers is just like the addition we have been doing up to this point. We simply add the two numbers and the result is your answer.

\[\text{Ans: 14}\]
13) Find the sum of the following positive integers.

<table>
<thead>
<tr>
<th>43 + 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Begin</td>
</tr>
<tr>
<td>(positive) + (positive) = positive</td>
</tr>
<tr>
<td>43 + 7 = 50</td>
</tr>
</tbody>
</table>

The first thing is to realize that we are adding two positive integers. Recall that whenever we add two positive integers, our result will always be positive. So we now know what sign our result will be.

Next we recall that adding two positive integers is just like the addition we have been doing up to this point. We simply add the two numbers and the result is your answer.

**Ans: 50**
14) Find the sum of the following positive integers.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10 + 22</td>
<td>Begin</td>
</tr>
</tbody>
</table>

The first thing is to realize that we are adding two positive integers. Recall that whenever we add two positive integers, our result will always be positive. So we now know what sign our result will be.

Next we recall that adding two positive integers is just like the addition we have been doing up to this point. We simply add the two numbers and the result is your answer.

**Ans: 32**
15) Find the sum of the following positive integers.

<table>
<thead>
<tr>
<th>Begin</th>
</tr>
</thead>
<tbody>
<tr>
<td>The first thing is to realize that we are adding two positive integers. Recall that whenever we add two positive integers, our result will always be positive. So we now know what sign our result will be.</td>
</tr>
<tr>
<td>Next we recall that adding two positive integers is just like the addition we have been doing up to this point. We simply add the two numbers and the result is your answer.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>( 4 + 16 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ans: 20</td>
</tr>
</tbody>
</table>

\( (\text{positive}) + (\text{positive}) = \text{positive} \)

\[ 4 + 16 = 20 \]
16) Find the sum of the following negative integers.

\((-10) + (-6)\)

Begin

\((-\text{negative}) + (-\text{negative}) = -\text{negative}\)

First we notice we are adding two negative numbers. Remember that when adding two negative numbers, the result will give you a negative number so we know the sign of our result. This is because we are adding two deficits or two things we owe someone and finding the total we owe them.

We already know what our sign will be at the end and now we just want to concentrate on adding the two integers.

So we simply add the absolute value of the two integers in the expression. Remember this strips the sign off the value.

Then we simply add the two integers and perform addition as we are used to doing. Once you get your result don’t forget to indicate the sign of the result you found earlier, which is negative.

Final result: \(-16\)

\((-10) + (-6) = (-16)\)

Ans: \(-16\)
17) Find the sum of the following negative integers.

\[ (-2) + (-21) \]

Begin

First we notice we are adding two negative numbers. Remember that when adding two negative numbers, the result will give you a negative number so we know the sign of our result. This is because we are adding two deficits or two things we owe someone and finding the total we owe them.

We already know what our sign will be at the end and now we just want to concentrate on adding the two integers.

\[ \text{negative} + \text{negative} = \text{negative} \]

\[ |-2| + |-21| \]

\[ 2 + 21 \]

\[ 2 + 21 = 23 \]

So we simply add the absolute value of the two integers in the expression. Remember this strips the sign off the value.

Then we simply add the two integers and perform addition as we are used to doing. Once you get your result don’t forget to indicate the sign of the result you found earlier, which is negative.

Final result: \(-23\)

\[ (-2) + (-21) = (-23) \]

Ans: \(-23\)
18) Find the sum of the following negative integers.

\((-100) + (-6)\)

<table>
<thead>
<tr>
<th>Begin</th>
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</table>

First we notice we are adding two negative numbers. Remember that when adding two negative numbers, the result will give you a negative number so we know the sign of our result. This is because we are adding two deficits or two things we owe someone and finding the total we owe them.

We already know what our sign will be at the end and now we just want to concentrate on adding the two integers.

\[|\text{negative}| + |\text{negative}| = \text{negative} \]

So we simply add the absolute value of the two integers in the expression. Remember this strips the sign off the value.

Then we simply add the two integers and perform addition as we are used to doing. Once you get your result don’t forget to indicate the sign of the result you found earlier, which is negative.

\[|\text{negative}| + |\text{negative}| = \text{negative} \]

\[100 + 6 = 106\]

Final result: \(-106\)

\[(-100) + (-6) = (-106) \]

**Ans:** \(-106\)
19) Find the sum of the following negative integers.

\((-13) + (-13)\)

<table>
<thead>
<tr>
<th>Begin</th>
</tr>
</thead>
</table>

First we notice we are adding two negative numbers. Remember that when adding two negative numbers, the result will give you a negative number so we know the sign of our result. This is because we are adding two deficits or two things we owe someone and finding the total we owe them.

We already know what our sign will be at the end and now we just want to concentrate on adding the two integers.

\(|-13| + |-13|\)

\(13 + 13\)

\(13 + 13 = 26\)

So we simply add the absolute value of the two integers in the expression. Remember this strips the sign off the value.

Then we simply add the two integers and perform addition as we are used to doing. Once you get your result don’t forget to indicate the sign of the result you found earlier, which is negative.

Final result: \(-26\)

\((-13) + (-13) = (-26)\)

**Ans:** -26
20) Find the sum of the following negative integers.

\((-1) + (-1)\)

**Begin**

First we notice we are adding two negative numbers. Remember that when adding two negative numbers, the result will give you a negative number so we know the sign of our result. This is because we are adding two deficits or two things we owe someone and finding the total we owe them.

We already know what our sign will be at the end and now we just want to concentrate on adding the two integers.

\[\text{(negative)} + \text{(negative)} = \text{negative}\]

\[|\text{-1}| + |\text{-1}|\]

\[1 + 1\]

\[1 + 1 = 2\]

Final result: \(-2\)

\[(-1) + (-1) = (-2)\]

**Ans: -2**
21) Find the sum of the following negative integers.

\[ (-31) + (-8) \]

<table>
<thead>
<tr>
<th>Begin</th>
</tr>
</thead>
</table>
| First we notice we are adding two negative numbers. Remember that when adding two negative numbers, the result will give you a negative number so we know the sign of our result. This is because we are adding two deficits or two things we owe someone and finding the total we owe them.

We already know what our sign will be at the end and now we just want to concentrate on adding the two integers.

\[ |-31| + |-8| \]

\[ 31 + 8 \]

\[ 31 + 8 = 39 \]

<table>
<thead>
<tr>
<th>Ans: -39</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final result: (-39)</td>
</tr>
</tbody>
</table>

\[ (-31) + (-8) = (-39) \]
22) Find the sum of the following integers.

\[ (-7) + 8 \]

**Begin**

First we notice we are adding two integers with different signs. Remember that it doesn’t matter if we are adding a negative to a positive or a positive to a negative. The sign of your result will always be carried by the sign of the largest absolute value in the expression.

In this case the largest absolute value is the number 8. So we already know our result will be positive.

\[ |-7| = 7, \quad |8| = 8 \]

\[ 7 < 8 \]

Remember that when adding two integers with opposite signs, we are really in fact subtracting. So next we subtract the absolute values from each other as we would with a regular subtraction we are used to.

\[ 8 - 7 = 1 \]

Final result: \[ 1 \]

\[ (-7) + 8 = 1 \]

**Ans: 1**
23) Find the sum of the following integers.

\[ 10 + (-2) \]

<table>
<thead>
<tr>
<th>Begin</th>
</tr>
</thead>
</table>

First we notice we are adding two integers with different signs. Remember that it doesn’t matter if we are adding a negative to a positive or a positive to a negative. The sign of your result will always be carried by the sign of the largest absolute value in the expression.

\[
\begin{align*}
|10| &= 10, \\
|-2| &= 2 \\
10 &> 2
\end{align*}
\]

In this case the largest absolute value is the number 10. So we already know our result will be positive.

\[
10 - 2 = 8
\]

Final result: \( 8 \)

Remember that when adding two integers with opposite signs, we are really in fact subtracting. So next we subtract the absolute values from each other as we would with a regular subtraction we are used to.

\[
10 + (-2) = 8
\]

Once you get your result don’t forget to indicate the sign of the result you found earlier, which is positive.

Ans: 8
24) Find the sum of the following integers.

\[ (-100) + 10 \]

Begin

First we notice we are adding two integers with different signs. Remember that it doesn’t matter if we are adding a negative to a positive or a positive to a negative. The sign of your result will always be carried by the sign of the largest absolute value in the expression.

\[ \text{First we notice we are adding two integers with different signs. Remember that it doesn’t matter if we are adding a negative to a positive or a positive to a negative. The sign of your result will always be carried by the sign of the largest absolute value in the expression.} \]

\[ \mid -100 \mid = 100, \quad \mid 10 \mid = 10 \]

\[ 100 > 10 \]

In this case the largest absolute value is the number 100. So we already know our result will be negative.

\[ 100 - 10 = 90 \]

Final result: \(-90\)

\[ (-100) + 10 = (-90) \]

Remember that when adding two integers with opposite signs, we are really in fact subtracting. So next we subtract the absolute values from each other as we would with a regular subtraction we are used to.

Once you get your result don’t forget to indicate the sign of the result you found earlier, which is negative.

Ans: \(-90\)
25) Find the sum of the following integers.

\[ (-31) + 12 \]

**Begin**

First we notice we are adding two integers with different signs. Remember that it doesn’t matter if we are adding a negative to a positive or a positive to a negative. The sign of your result will always be carried by the sign of the largest absolute value in the expression.

In this case the largest absolute value is the number 31. So we already know our result will be negative.

Remember that when adding two integers with opposite signs, we are really in fact subtracting. So next we subtract the absolute values from each other as we would with a regular subtraction we are used to.

Once you get your result don’t forget to indicate the sign of the result you found earlier, which is negative.

**Ans:** -19
26) Find the sum of the following integers.

\((-1) + 1\)

<table>
<thead>
<tr>
<th>(negative) + (positive)</th>
<th>Begin</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>(positive) + (negative)</td>
<td></td>
</tr>
<tr>
<td>=</td>
<td></td>
</tr>
<tr>
<td>(sign of largest absolute value)</td>
<td></td>
</tr>
</tbody>
</table>

First we notice we are adding two integers with different signs. Remember that it doesn’t matter if we are adding a negative to a positive or a positive to a negative. The sign of your result will always be carried by the sign of the largest absolute value in the expression.

In this the absolute value of both are equal to each other. This should already be giving us a clue of the result since we can’t figure out the sign of our result.

Remember that when adding two integers with opposite signs, we are really in fact subtracting. So next we subtract the absolute values from each other as we would with a regular subtraction we are used to.

In this case we see why we struggled in finding the sign of the result. This is because it has no sign since the answer is zero. Zero is neutral; it is neither positive nor negative.

Ans: 0
27) Find the sum of the following integers.

\[ 42 + (-9) \]

**Begin**

First we notice we are adding two integers with different signs. Remember that it doesn’t matter if we are adding a negative to a positive or a positive to a negative. The sign of your result will always be carried by the sign of the largest absolute value in the expression.

**In this case the largest absolute value is the number 42. So we already know our result will be positive.**

\[ |42| = 42, \quad |-9| = 9 \]

**Remember that when adding two integers with opposite signs, we are really in fact subtracting. So next we subtract the absolute values from each other as we would with a regular subtraction we are used to.**

\[ 42 - 9 = 33 \]

Final result: \( 33 \)

**Once you get your result don’t forget to indicate the sign of the result you found earlier, which is positive.**

**Ans: 33**
<table>
<thead>
<tr>
<th>28) $e + d$</th>
<th>Begin</th>
</tr>
</thead>
<tbody>
<tr>
<td>$e + d = (-15) +</td>
<td>3</td>
</tr>
<tr>
<td>$(-15) + 3$</td>
<td></td>
</tr>
<tr>
<td>$</td>
<td>−15</td>
</tr>
<tr>
<td>$15 &gt; 3$</td>
<td></td>
</tr>
<tr>
<td>$15 − 3 = 12$</td>
<td>So now we simply subtract the two values and remember to add the appropriate sign to the result.</td>
</tr>
<tr>
<td><strong>Final result: $−12$</strong></td>
<td><strong>Ans: $−12$</strong></td>
</tr>
<tr>
<td>$e + d = (-15) +</td>
<td>3</td>
</tr>
<tr>
<td>29) ( c + b )</td>
<td>Begin</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>( c + b = (-21) + 10 )</td>
<td>First, let’s evaluate the expression by substituting the values expressed by the letters. Now we can use what we have learned previously to find the result of this addition.</td>
</tr>
<tr>
<td>((-21) + 10)</td>
<td></td>
</tr>
<tr>
<td>(</td>
<td>-21</td>
</tr>
<tr>
<td>(21 &gt; 10)</td>
<td>So now we simply subtract the two values and remember to add the appropriate sign to the result.</td>
</tr>
<tr>
<td>(21 - 10 = 11)</td>
<td></td>
</tr>
<tr>
<td>Final result: (-11)</td>
<td>Ans: (-11)</td>
</tr>
<tr>
<td>(c + b = (-21) + 10 = (-11))</td>
<td></td>
</tr>
</tbody>
</table>
30) \(a + c + e\)

| \(a + c + e = |{-5}| + (-21) + (-15)\) | Begin |
|----------------------------------------|-------|
| \(|{-5}| = 5\)                         |       |
| \(5 + (-21) + (-15)\)                 |       |

5 + (−21)

\(|5| = 5, \quad |{-21}| = 21, \quad 21 > 5\)

\(21 - 5 = 16\)

Result: −16

We now have three integers to add. To keep it simple we can tackle two integers at a time by starting from left to right then adding the result to the remaining integer in our expression.

Since both integers have opposite signs, our result will take on the sign of the largest absolute value which in this case is 21 so our result will be negative.

We then subtract and tag on the negative sign.

We are now down to two integers to add. We notice both are negative integers and recall that this means our result will be negative.

We then add the absolute values of both integers and include the negative sign on our result.
<table>
<thead>
<tr>
<th>$16 + 15 = 31$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Result: $-31$</td>
</tr>
<tr>
<td>$a + c + e =</td>
</tr>
<tr>
<td>Ans: $-31$</td>
</tr>
</tbody>
</table>
31) \( b + e \)

<table>
<thead>
<tr>
<th>Begin</th>
</tr>
</thead>
<tbody>
<tr>
<td>( b + e = 10 + (-15) )</td>
</tr>
<tr>
<td>( 10 + (-15) )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First, let's evaluate the expression by substituting the values expressed by the letters. Now we can use what we have learned previously to find the result of this addition.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(</td>
</tr>
<tr>
<td>( 15 &gt; 10 )</td>
</tr>
<tr>
<td>( 15 - 10 = 5 )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>We see that our values have opposite signs which means our final result will adopt the sign of our largest absolute value from our expression which in this case will be negative since 15 is greater.</th>
</tr>
</thead>
<tbody>
<tr>
<td>So now we simply subtract the two absolute values and remember to add the appropriate sign to the result.</td>
</tr>
<tr>
<td>Final result: (-5)</td>
</tr>
<tr>
<td>( b + e = 10 + (-15) = (-5) )</td>
</tr>
</tbody>
</table>

| Ans: \(-5\) |
32) \( c + c \)

| \( c + c = (-21) + (-21) \) | Begin |
| \( (-21) + (-21) \) | |

First, let's evaluate the expression by substituting the values expressed by the letters. Now we can use what we have learned previously to find the result of this addition.

| \( \mid -21 \mid = 21, \quad \mid -21 \mid = 21 \) | |
| 21 + 21 = 42 | Since both integers are negative, our result will have the negative sign. |

We then add the absolute value of the integers and place the negative sign on the result.

| Final Result: \(-42\) | |
| \( c + c = (-21) + (-21) = (-42) \) | Ans: -42 |
### Section 4 - Adding Integers

#### 33) $e + d + a + a$

<table>
<thead>
<tr>
<th>Begin</th>
</tr>
</thead>
<tbody>
<tr>
<td>First, let's evaluate the expression by substituting the values expressed by the letters. We see we have some absolute value expressions. We also substitute them for the actual values.</td>
</tr>
</tbody>
</table>

\[
e + d + a + a = (-15) + |3| + |-5| + |-5| \]

\[
|3| = 3, \quad |-5| = 5
\]

\[
(-15) + 3 + 5 + 5
\]

We now have four integers to add. To keep it simple we can tackle two integers at a time by starting from left to right then adding the result to the result from the next two integers in our expression.

\[
(-15) + 3 + 5 + 5
\]

\[
(-15) + 3
\]

\[
5 + 5
\]

Since both integers have opposite signs, our result will take on the sign of the largest absolute value which in this case is 15 so our result will be negative.

\[
|15| = 15, \quad |3| = 3, \quad 15 > 3
\]

\[
15 - 3 = 12
\]

Result: $-12$

\[
(-15) + 3 = (-12)
\]
We see that the next two integers to add in the expression are both positive. This means our result for this addition will be positive.

Next we simply add both integers like a regular addition.

We are now down to two integers to add. Since both integers have opposite signs, our result will take on the sign of the largest absolute value which in this case is 12 so our result will be negative.

We then subtract and tag on the negative sign.

We simply add the two numbers together like a regular addition problem.

**Final Result:** \(-2\)

\((-15) + 3 + 5 + 5 = (-12) + 10\)

\((-12) + 10\)

\(|-12| = 12, \quad |10| = 10, \quad 12 > 10\)

\(12 - 10 = 2\)

**Ans:** \(-2\)