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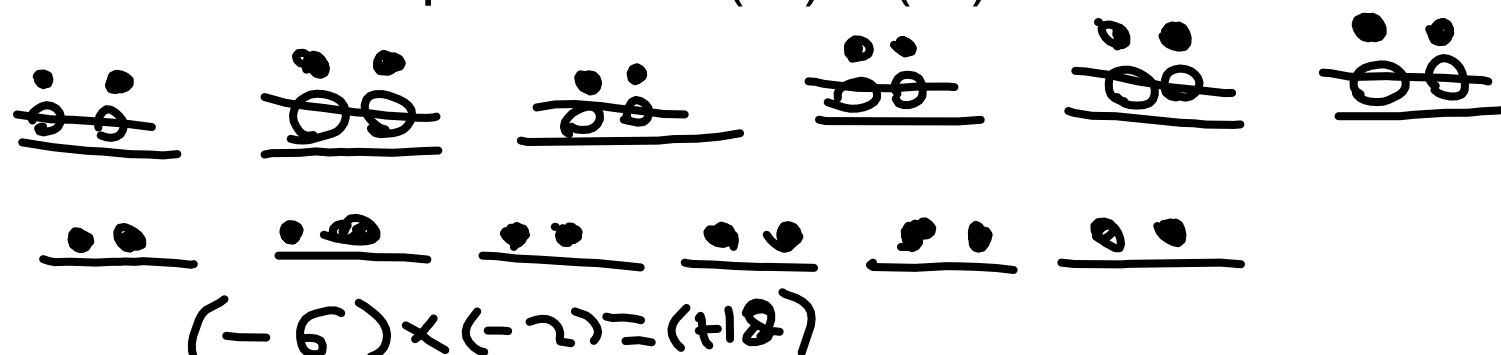
Warm Up Grade 8

Quiz Time

after warm up



1) Use tile to model the product of  $(-6) \times (-2)$



2) Find the product using the distributive property **Box Method**

a)  $(-27) \times (+45) = (-1215)$

b)  $(-26) \times (-34) = (+884)$

	40	5
20	$40 \times 20 = 800$	$20 \times 5 = 100$
7	$40 \times 7 = 280$	$7 \times 5 = 35$

$$\begin{array}{r} 800 \\ + 280 \\ + 100 \\ + 35 \\ \hline 1215 \end{array}$$

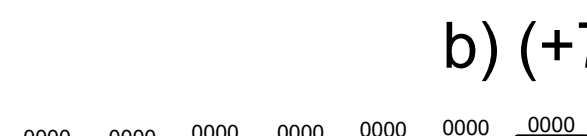
	30	4
20	$20 \times 30 = 600$	$20 \times 4 = 80$
6	$6 \times 30 = 180$	$6 \times 4 = 24$

$$\begin{array}{r} 600 \\ 80 \\ 180 \\ 24 \\ \hline 884 \end{array}$$

# Worksheet Mult Integers

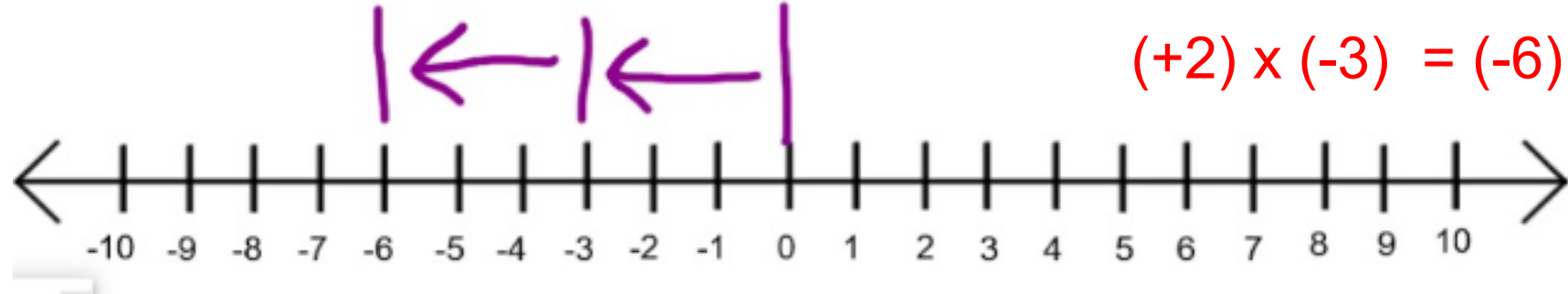
1) Use Tile to multiply the following

a)  $(-8) \times (+2)$   
 $= (+2) \times (-8) = (-16)$



b)  $(+7) \times (-4) = (-28)$  c)  $(-4) \times (-5) = (+20)$

2) What multiplication fact could be written for the following number line.



3) Find the product to each.

a)  $(-15) \times (+2) = (-30)$  b)  $(-12) \times (-9) = (+108)$  c)  $(+11) \times (+10) = (+110)$   
 e)  $(+7) \times (+7) = (+49)$  f)  $(+5) \times (-9) = (-45)$  g)  $(-8) \times (+8) = (-64)$   
 h)  $(-3) \times (-6) = (+18)$

4) Use the distributive Property for each

a)  $(-14) \times (+62) = (-868)$

10	$10 \times 60 = 600$	$10 \times 2 = 20$
4	$40 \times 60 = 2400$	$40 \times 2 = 80$

b)  $(+19) \times (+40) = (+760)$

10	$10 \times 40 = 400$	$10 \times 9 = 90$
9	$90 \times 40 = 3600$	$90 \times 9 = 810$

c)  $(-15) \times (-17) = (+255)$

10	$10 \times 10 = 100$	$10 \times 7 = 70$
5	$50 \times 10 = 500$	$50 \times 7 = 350$

d)  $(+39) \times (+24) = (+936)$

20	$30 \times 20 = 600$	$9 \times 20 = 180$
4	$40 \times 30 = 1200$	$40 \times 9 = 360$

## Homework Solutions

$$a) \quad (+8)(-3) \\ = (-24)$$

$$b) \quad (-5)(-4) \\ = (+20)$$

$$c) \quad (-3)(+9) \\ = (-27)$$

$$d) \quad (+7)(-6) \\ = (-42)$$

$$e) \quad (+10)(-3) \\ = (-30)$$

$$f) \quad (-7)(-6) \\ = (+42)$$

$$g) \quad (0)(-8) \\ = 0$$

$$h) \quad (+10)(-1) \\ = (-10)$$

$$i) \quad (-7)(-8) \\ = (+56)$$

$$j) \quad (+9)(-9) \\ = (-81)$$

$$6b) (-30) (-26) = (+780)$$

20	6
30	40

$30 \times 20$ 600	$6 \times 30$ 180
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$$\begin{array}{r} 600 \\ + 180 \\ \hline 780 \end{array}$$

$$f) (+80) \times (-33)$$

30	3
80	40

$80 \times 30$ 240	$3 \times 30$ 90
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$$\begin{array}{r} 240 \\ + 90 \\ \hline 330 \end{array}$$

$$(+80) \times (-33) = (-330)$$

$$7a) (+25) \times (-12)$$

10	2
20	5

$20 \times 10$ 200	$20 \times 2$ 40
$5 \times 10$ 50	$2 \times 5$ 10

$$\begin{array}{r} 200 \\ 40 \\ 50 \\ 10 \\ \hline 300 \end{array}$$

$$(+25) \times (-12) = (-300)$$

$$7e) (+17) \times (+13)$$

10	7
10	3

$10 \times 10$ 100	$10 \times 7$ 70
$3 \times 10$ 30	$3 \times 7$ 21

$$\begin{array}{r} 100 \\ 70 \\ 30 \\ 21 \\ \hline 221 \end{array}$$

$$(+17) \times (+13) = (+221)$$

$$h) (+29) \times (+23)$$

20	9
20	3

$20 \times 20$ 400	$20 \times 9$ 180
$3 \times 20$ 60	$3 \times 9$ 27

$$\begin{array}{r} 400 \\ 180 \\ 60 \\ 27 \\ \hline 667 \end{array}$$

$$\begin{array}{r} (+23) \times (+29) \\ = (+667) \end{array}$$

8 a c d f

$$a) (+5) \times \boxed{+4} = (+20) \quad \text{same}$$

$$c) (-9) \times \boxed{+6} = (-54) \quad \text{diff}$$

$$d) \boxed{-6} \times (-3) = (+18) \quad \text{same}$$

$$f) \boxed{-12} \times (-12) = (+144) \quad \text{same}$$

$$d) (-40) \times (+21)$$

20	1
40	40

$40 \times 20$ 800	$40 \times 1$ 40
-----------------------	---------------------

$$\begin{array}{r} 800 \\ + 40 \\ \hline 840 \end{array}$$

$$(-40) \times (+21) = (-840)$$

$$h) (-90) \times (-52)$$

50	2
40	10

$50 \times 90$ 450	$2 \times 90$ 180
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$$\begin{array}{r} 450 \\ 180 \\ \hline 630 \end{array}$$

$$(-90) \times (-52) = (+4680)$$

$$c) (-34) \times (-16)$$

30	4
10	6

$30 \times 10$ 300	$10 \times 4$ 40
$6 \times 30$ 180	$6 \times 4$ 24

$$\begin{array}{r} 300 \\ 180 \\ 40 \\ + 24 \\ \hline 544 \end{array}$$

$$(-34) \times (-16) = (+544)$$

$$7g) (-51) (-25)$$

50	1
20	5

$20 \times 50$ 1000	$1 \times 20$ 20
$5 \times 50$ 250	$5 \times 1$ 5

$$\begin{array}{r} 1000 \\ 250 \\ 20 \\ 5 \\ \hline 1275 \end{array}$$

$$(-25) \times (-51) = (+1275)$$

10) Gaston \$26 withdrew for 17 weeks  
 $(-26) \times (+17)$

20
6

10	$20 \times 10$ 200	$20 \times 6$ 120
7	$7 \times 20$ 140	$7 \times 6$ 42

200  
120  
140  
42  


---

502

Gaston withdrew \$502.

- 11) a) greatest product  $\Rightarrow$  largest (+)

So  $(-)\times(-)$   
or  
 $(+)\times(+)$

$(-5) \times (-2) = +10$   

$(-5) \times (-8) = +40$ 
greatest

 $(-8) \times (-2) = +16$   
 $(+9) \times (+4) = +36$
- b) least product  $\Rightarrow$  negative so  $(-)\times(+)$ 

$(-5) \times (+9) = -45$   
 $(-5) \times (+4) = -20$   

$(-8) \times (+9) = -72$ 
least

 $(-8) \times (+4) = -32$   
 $(-2) \times (+4) = -8$   
 $(-2) \times (+9) = -18$

## Add or Subtract Decimals

To add or subtract decimals, follow these steps:

- > Write down the numbers, one under the other, with the decimal points lined up.
- > Put in zeros so the numbers have the same length
- > Then add or subtract, using column addition, remembering to put the decimal point in the answer lined up.

Ex)  $2.679 + 1.5$

$$\begin{array}{r} \phantom{0}^1 2.679 \\ + \phantom{0}^1 1.500 \\ \hline 4.179 \end{array}$$

Ex)  $21.607 + 0.958$

$$\begin{array}{r} \phantom{0}^1 21.607 \\ + \phantom{0}^1 0.958 \\ \hline 22.565 \end{array}$$

Ex)  $17.2 - 6.37$

$$\begin{array}{r} \phantom{0}^6 17.20 \\ - \phantom{0}^6 6.37 \\ \hline 10.83 \end{array}$$

Add or Subtract

↳ the decimal (•) lines up

a)  $37.18 + 0.29$

$$\begin{array}{r} 37.18 \\ + 0.29 \\ \hline 37.47 \end{array}$$

!!

b)  $74.1 - 21.46$

$$\begin{array}{r} 74.10 \\ - 21.46 \\ \hline 52.64 \end{array}$$

c)  $21 + 4.2$

d)  $31.7 - 5.06$

$$30.74 - 11.96$$

$$\begin{array}{r} \overset{29}{\cancel{30}}.\overset{64}{\cancel{74}} \\ - 11.96 \\ \hline 18.78 \end{array}$$

$$100.2 - 2.78$$

$$\begin{array}{r} \overset{99}{\cancel{100}}.\overset{10}{\cancel{2}} \\ - 2.78 \\ \hline 97.42 \end{array}$$





Suppose five movies were released on the same weekend, and their box office opening week earnings were as follows:

Movie A: 45.67 million dollars

Movie B: 32.4 million dollars

Movie C: 28.1 million dollars

Movie D: 4.73 million Dollars

Movie E: 12.495 million Dollars



a) Question: What is the total box office earnings for all five movies during their opening week?

$$\begin{array}{r} 45.670 \\ 32.400 \\ 28.100 \\ 4.730 \\ + 12.495 \\ \hline 123.395 \end{array}$$

b) How much more did movie A make over movie C?

a) Find the difference

$$12.12 - 8.56$$

b) Find the sum

$$907.2 + 62$$

Name: \_\_\_\_\_ Worksheet

Show work for all questions.

- 1) Find the sum or difference
- |                     |                     |
|---------------------|---------------------|
| a) $2.876 - 0.975$  | b) $71.382 + 6.357$ |
| c) $125.12 + 37.84$ | d) $9.7 - 1.36$     |
- 2) The tallest mountain in the world is Mount Everest which is about 8.848 km above sea level. The tallest mountain in Canada is Mount Logan and is about 5.96 Km above sea level. What is the difference in the heights of the mountains?
- 3) Four classes for students from Kim's school is planning a field trip. The total cost of the trip is \$ 1067.50.
- to date the class raised \$192.18, \$212.05, \$231.24, \$183.77.
- a) How much money have the classes raised so far?
- b) How much more money do the classes need to raise in total?

4) A baker wants to make 3 different kinds of chocolate chip cookies. The recipes calls for 2.75 kg, 4.4 kg, and 5.55 kg of chocolate chips. The baker has 10.5 kg of chocolate chips.

- a) How many kilograms of chocolate chips does the baker need?
- b) Does the baker have enough chocolate chips to make the cookies?
- c) The baker wants to follow the recipes exactly. If your answer t part b is no, how many more kilograms of chocolate chips are needed? If your answer to part b is yes, how many kilograms of chocolate chip will the baker have left over?

5) Calculate  $4.671 + 3.9 + 0.875$

6) The Jardine family and the Hallihan family have similar homes. The Jardine family sets its thermostat at 20°C during the winter months. Its monthly heating bills were: \$171.23, \$134.35, and \$123.21. The Hallihan family used a programmable thermostat to lower the temperature at night, and during the day when the family was out. The Hallihan family's monthly heating bills were: \$134.25, \$103.27, and \$98.66.

- a) How much money did each family pay to heat its home during the winter months?
- b) How much more money did the Jardine family pay?

## Warm Up Sept. 12

1) Find the sum of 18.7 and 258.36

2) Find the difference of 97.45 and 2.8

3) Evaluate   a)  $14 - 3.6$    b)  $17.2 + 12$    c)  $901.3 - 76.45$

## Class/Homework

Finish sheet from yesterday

(If you need more I have another sheet)

## If more is needed

Name : \_\_\_\_\_

Score : \_\_\_\_\_

### Decimals

Sub: 51

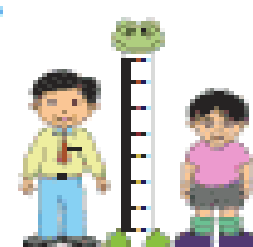
- 1) Angie spent \$131.56 on groceries during the week preceding Christmas. During the Christmas week, her grocery expenses reduced to \$56.91 as she was out of town for a few days. How much more money did Angie spend on groceries during the week before Christmas than the following week?

\_\_\_\_\_



- 2) Sharon takes her 2 kids, Ken and Ben to the doctor's office to fill the health form given at school. Ken is 4.01 feet tall and Ben is 3.71 feet tall. How much taller is Ken than Ben?

\_\_\_\_\_



- 3) Lily takes up a new year resolution to lose weight. She weighed 164.76 pounds on January 1st, 2017. Lily goes on a low-carb diet and works out in the gym. On January 31st, 2017, she weighs 159.34 pounds. How many pounds did Lily lose in a month?

\_\_\_\_\_



- 4) The tallest tree among the redwoods situated in California measures 379.7 feet. The tallest tree among the mountain-ash species in Australia stands at 326.77 feet. What is the difference in height between the two trees?

\_\_\_\_\_



- 5) Jake lives in Philadelphia and plans to attend his high school reunion in Connecticut, which is 190.8 miles away. He drives 105.7 miles and reaches New York City. How many more miles does Jake have to drive, to attend his high school reunion in Connecticut?

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