

1.2 Adding + Subtracting Rational Numbers in Decimal Form

September 14, 2018 11:16 AM

1.2 – Rational Numbers in Decimal Form...continued!

Name: _____

Block: _____

Evaluate.

98. $2 \times 5 =$	99. $2 \times -5 =$	100. $-2 \times (-5) =$	101. $-2 \times (-5) =$	102. $2(-7) =$
+10	-10	-10	+10	$(2)(-7)$ $2 \times -7 = -14$

What are the RULES for MULTIPLYING & DIVIDING Integers?

Rule	Example
$(+)(+) = +$	$2 \times 5 = 10$ or $5 \times 2 = 10$
$(+)(-) = -$	$2 \times (-5) = -10$
$(-)(+) = -$	$(-2) \times (5) = -10$
$(-)(-) = +$	$(-2) \times (-5) = +10$
$(+)\div(+)=+$	$+10 \div +5 = +2$
$(-)\div(-)=+$	$(-10) \div (-5) = +2$
$(+)\div(-)=-$	$+10 \div (-5) = (-2)$
$(-)\div(+)=-$	$(-10) \div (+5) = (-2)$

opposite signs { } *Answer*

opposite signs { } *negative Answer*

opposite signs { } *Answer will always be negative*

In summary.... Same Sign = Positive. Different Sign = Negative.



(+) (+) (+) (+)

Evaluate.

103. $4 \times 6 =$	104. $-8(3) =$	105. $(-11)(-5) =$	106. $-2 \times 23 =$
24	(-24)	55	(-46)
107. $-55 + 5 =$	108. $-5 \div (5) =$	109. $(44) \div (-4) =$	110. $-20 \div 4 =$
(-11)	(-1)	(-11)	(-5)
111. $-9 \times -5 =$	112. $-5(5) =$	113. $(9)(-4) =$	114. $-20 \times 3 =$
45	(-25)	(-36)	(-60)

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NO CALCULATOR

① multiply normally as if there is no decimal.

Example 6: Multiplying decimals

$$1\text{dp} + 1\text{dp} = 2\text{dp}$$

a) $1.5 \times 1.8 =$ $\underline{\begin{array}{r} 15 \\ \times 18 \\ \hline 120 \\ +150 \\ \hline 270 \end{array}}$ b) $\underline{\begin{array}{r} 12 \\ \times 35 \\ \hline 36 \\ 120 \\ \hline 420 \end{array}}$ c) $\underline{\begin{array}{r} 102 \\ \times 4 \\ \hline 408 \end{array}}$

move 2 places

② count the total number of decimal place, and give the answer that many decimals



Estimate and then determine the product.

NO calculator

$$217. 2.34 \times 6.8 =$$

$$\underline{\begin{array}{r} 234 \\ \times 68 \\ \hline 1872 \\ 1404 \\ \hline 15936 \end{array}}$$

$$218. 62.8 \times 46.2 =$$

$$\underline{\begin{array}{r} 628 \\ \times 462 \\ \hline 3140 \\ 2512 \\ \hline 28856 \end{array}}$$

$$219. 72.9 \times 66.12 =$$

$$\underline{\begin{array}{r} 729 \\ \times 6612 \\ \hline 4554 \\ 4371 \\ \hline 48208 \end{array}}$$

PRACTICE

Estimate and then determine the product.

NO calculator

217. $2.34 \times 6.8 =$	218. $62.8 \times 46.2 =$	219. $72.9 \times 66.12 =$	220. $112.04 \times 50.19 =$
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$$\begin{array}{r}
 234 \\
 \times 68 \\
 \hline
 1872 \\
 14040 \\
 \hline
 15.912
 \end{array}$$

3 decimal digits

221. $15.3 \times 6.8 =$	222. $-22.7 \times 4.2 =$	223. $-32.9(-26.2) =$	224. $112 \times (-0.29) =$
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Example 7: On February 5, 2008, the price of share in CIBC changed by $-\$1.640$. Dan owns 35 shares. By how much did those shares change in value that day?

1 share changed by -1.640

so, 35 shares changed by $35 \times (-1.640)$

$$\begin{array}{r}
 1640 \\
 \times 35 \\
 \hline
 8200 \\
 +49200 \\
 \hline
 57400
 \end{array}$$

~~$= 57.400$~~ $\quad 3 \text{ dp.}$

Dan's shares
changed by
 $-\$57.40$

Evaluate.

115. $(1)(1) =$	$+1$	116. $(1)(-1) =$	-1	117. $(-1)(-1) =$	$+1$
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118. $(-1)(-1)(-1) =$	$+1(-1) = -1$	119. $(-1)(-1)(-1)(-1) =$	$(+1)(-1) = -1$	120. $(-1)(-1)(-1)(-1) =$	$-(-1) = +1$
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Answer the following with a yes or a no.

121. If two negative numbers are multiplied together will their product be positive?

Yes \oplus

122. If three negative numbers are multiplied together will their product be positive?

No, will be \ominus

123. If four negative numbers are multiplied together will their product be positive?

Yes \oplus

124. If an even number of negative numbers are multiplied together will their product be positive?

Yes \oplus

125. If an odd number of negative numbers are multiplied together will their product be positive?

No, will be \ominus

Multiplying MORE THAN 1 Integer... How do + and - signs apply?

PRACTICE

Determine whether each product is positive or negative.

134. $(-3)(-14)(-91) =$ ~~-39494~~

Negative ✓

evaluate.

135. $(-12)(-51)(-19)(-1) =$

136. $-(-101)(-1)(-1)(-199) =$

137. $(-11)(-2)(-12)(2)(-31) =$

138. $(-1)(11)(-1)(51)(-1)(-2) =$

139. $(-5)(-92)(-1)(-19)(-2) =$

Find the product.

140. $2 \times 3 \times 1 =$

141. $-2 \times 5 \times (-1) =$

142. $-4 \times (-3) \times (-1) =$

143. $-1 \times (-2) \times 3 \times (-1) =$

144. $1 \times (-2) \times 5 \times (-1) =$

145. $-1 \times (-1) \times (-1) \times (-4) =$

HW practice Q's
P. 8 + 9

P. 8 + 9

$143. -1 \times (-2) \times 3 \times (-1) =$

$144. 1 \times (-2) \times 5 \times (-1) =$

$145. -1 \times (-1) \times (-1) \times (-4) =$

$146. (-1)(-2)(-1)(2)(-1)(-2) =$

$147. (-1)(1)(-1)(5)(-1)(-2) =$

$148. (-5)(-2)(-1)(-1)(-2) =$

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* Review: $(+) \div (+) =$ $(-) \div (-) =$ $(-) \div (+) =$ $(+) \div (-) =$ * *

Warm Up: Dividing Integers

a) $8 \div (-2) =$ _____

b) $(-12) \div (-3) =$ _____

Example 8: Dividing Integers **with Decimals**.

a) $(-1.38) \div 0.6$

b) $(-2.56) \div (-0.4)$

Estimate and then evaluate each quotient. Round your answer to 1 decimal place.

$225. 234 \div 6 =$

$226. 1204 \div 5 =$

$227. 24 \div 7 =$

$228. -534 \div 8 =$

$$\begin{array}{r} 6 \\ \overline{)234} \end{array}$$

Example 9: Determine the missing number in each division statement.

a) $[] \div (-2.6) = 9.62$



Complete all "practice" questions in this booklet
Section 1.2 pg 18-19
Questions #1-11, *12, *15

(some of these questions you may have all ready done-yesterday's homework was:
#1,2,5,7,8ab,10,*12)

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