WARM UP GRADE 8
Tuesday, Sept. 27
Section 2.5 Order of Operations with Integers
continued

Evaluate: (MUST SHOW WORK)

Top $\dfrac{4 - [\ 18 - (-4)\ ] \times (-2)}{2 \times (-3)}$ Bott

Bottom
$2 \times (-3)$
$= (-6)$

Top $4 - [\ 18 \underset{\text{add opp}}{-} (-4)\ ] \times (-2)$

$= 4 - (18 + (+4)) \times (-2)$

$= 4 - (+22) \times (-2)$

$= 4 - (-44)$
$\quad\quad\;\;\downarrow\;\;\;\;\;\;\downarrow$
$\quad\quad\;\text{add}\;\;\;\text{opp}$

$= 4 + (+44)$

$= +48$

$\dfrac{\text{Top}}{\text{Bott}} = \dfrac{(+48)}{(-6)} = \boxed{-8}$

Extra Practice 5   *Homework Solutions for Friday's Class*

(Master 2.22)   **SHOW ALL WORK ON YOUR OWN PAPER**

Lesson 2.5: Order of Operations with Integers

1. Evaluate. State which operation you do first.

   a) $8 \times 5 - 4$

   = 40 − 4

   = 36

   b) $(-4)[(-4) + 9]$

   (−4) (+5)

   −20

   c) $18 \div [(-7) - 2]$

   add opr

   = $18 \div [(-7)+(-2)]$

   = $18 \div$ [−9]

   = −2

   d) $(-3) + (-14) \div (-2)$

   = (−3) + (+7)

   = +4

2. Evaluate. Show all steps.

   a) $4(-8) - 9$

   = (−32) − 9

   = (−32) + (−9)

   = −41

   b) $(-1) + (-20) \div 5$

   = (−1) + (−4)

   = −5

   c) $(-9) + (-4)(-2)$

   = (−9) + (+8)

   = −1

   d) $(-3)[(-8) - 11]$

   = (−3) [(−8)+(−11)]

   = (−3)[(−19)]

   = +57

3. Evaluate.

   a) $\dfrac{(-5) + (-9)}{2}$ = $\dfrac{(-14)}{2}$

   = −7

   b) $\dfrac{-12}{(-2)(-3)}$ = $\dfrac{-12}{(+6)}$

   = −2

   c) $\dfrac{24 \div (-6) - 1}{-5}$

   = $\dfrac{(-4) - 1}{-5}$ $\dfrac{(-4) + (-1)}{-5}$

   = $\dfrac{-5}{-5}$

   = +1

   d) $\dfrac{36}{(-5) \times 2 + 4}$

   = $\dfrac{36}{(-10) + 4}$

   = $\dfrac{36}{(-6)}$

   = −6

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4. Evaluate.

a) $(-72) \div 9 + 4 \times (-3)$

$(-8) + 4 \times (-3)$

$(-8) + (-12)$

-20

b) $5(-2) - 63 \div (-7)$

$= (-10) - 63 \div (-7)$

$= (-10) - (-9)$

$= (-10) + (+9)$

$= -1$

c) $\dfrac{4(-5) + [28 \div (-4)]}{5 \times (-2) + 1}$

$= \dfrac{4(-5) + [\ -7\ ]}{(-10)\ \ +1}$

$= \dfrac{-20 + [\ -7\ ]}{(-10)\ \ +1}$

$= \dfrac{-27}{-9}$

$= +3$

d) $\dfrac{4 \times (-4) + (-8)}{[10 + (-1)] + [2 \times (-3)]}$

$= \dfrac{(-16)\ \ + (-8)}{[\ (+9)\ ] + [\ (-6)\ ]}$

$= \dfrac{(-24)}{(+3)}$

$= -8$

5. Evaluate each expression. Then insert one pair of square brackets in each expression so it evaluates to −1.

a) $12 \div [(-4) + (-8)]$

b) $[(-9) + 6] \div 3$

c) $5 \div (-5) \times (0 + 1)$

$12 \div (-4) + (-8)$

$-3 \ + \ (-8)$

-11

SHEET

Grade 8 Unit 2 Integers
Homework Solutions for Friday's Class
Order of Operations (Extra Practice)

Evaluate each expression.

1) $10 \div (4 - 2)$

$= 10 \div (2)$

$= 5$

2) $-16 \div (3 - -1)$

$= -16 \div (3 + +1)$

$= -16 \div (+4)$

$= -4$

$(-6) + (-4)$

3) $(1 - 5) \div -2$

$= -4 \div -2$

$= (+2)$

4) $(-6 - 4) \div 2$

$= (-10) \div 2$

$= (-5)$

5) $-16 \div (-1 - 3)$

$= -16 \div (-4)$

$= (+4)$

6) $4 - 15 \div -3$

$= 4 + 5$ or $= 4 - (-5)$

$= 9$ $= 4 + 5$

7) $(-12 \times 2) \div 6$

$= (-24) \div 6$

$= (-4)$

8) $-6 \div -2 + 2$

$= +3 + 2$

$= (+5)$

9) $-6 + -5 - -1$

$= -6 + (-5) + (+1)$

$= (-11) + (+1)$

$= (-10)$

10) $4 \times -15 \div 5$

$= (-60) \div 5$

$= (-12)$

13) $2 + 4 \times 5 + 6$

$= 2 + (20) + 6$

$= 22 + 6$

$= 28$

14) $12 \div 4 + 6 \div 2$

$= 3 + 6 \div 2$

$= 3 + 3$

$= 6$

Homework Solutions for Friday's Class

11) $6 + 6 \times 2 + 6$

$6 + 12 + 6$

$18 + 6$

24

12) $5 - (4 - (3 - 2))$

$= 5 - (4 - (1))$

$= 5 - (3)$

$= 2$

Homework Solutions for Friday's Class

15) $(5 - (2 + 2)) \times 3$

$= (5 - (4)) \times 3$

$= (+1) \times 3$

$= 3$

16) $5(16 \div 4 + 18 \div 3)$

$= 5(4 + 18 \div 3)$

$= 5(4 + 6)$

$= 5 (10)$

$= 50$

17) $8 \div 4 + 5 - 2 - 1$

$= 2 + 5 - 2 - 1$

$= \quad 7 \quad - 2 - 1$

$= \quad 5 \quad - 1$

$= \quad\quad 4$

18) $5 - 2 \div (5 - (5 - 2))$

$= 5 - 2 \div (5 - (3))$

$= 5 - 2 \div (2)$

$= 5 - 1$

$= 4$

19) $(1 + 6)(6 - 2) - 2$

$= (7)(4) - 2$

$= \quad 28 - 2$

$= 26$

20) $(4 - 3) \times 6(6 + 1)$

$= (1) \times 6(7)$

$= \quad 6(7)$

$= \quad 42$

21) $(13 * 7 \times (-2)) + 4 \times 6 \div 2$

$(13 + (-14)) + 4 \times 6 \div 2$

-1

$+ \quad 4 \times 6 \div 2$

$-1 \ + \quad 24 \div 2$

$-1 \ + \quad 12$

$= \ 11$

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22) $9^2 - (-10) \div 2 (7 - 12)$

$= \quad 9^2 - (-10) \div 2 \ (-5)$

$= 81 - (-10) \div 2(-5)$

$= 81 - (-5)(-5)$

$= 81 - (+25)$

$= \quad 56$

You try

$$\frac{14 - 2 \times 6}{2 \times 2 + 3 \times 8} \qquad = \frac{2}{28} = \frac{1}{14}$$

top

$14 - \underline{2 \times 6}$
$14 - 12$
$ +2$

Bottom

$2 \times 2 + 3 \times 8$
$4 + \underline{3 \times 8}$
$4 + 24$
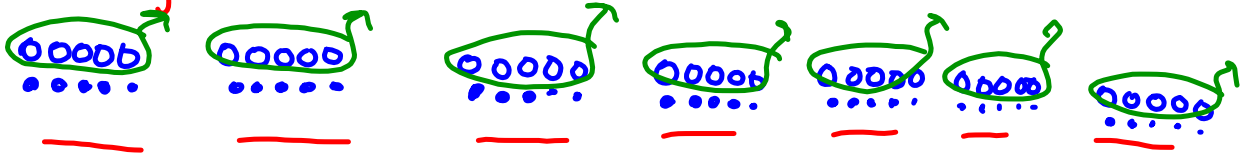$ 28$

$=$

$=$

$$(-7) \times (-5) = +35$$

of -5

take
away

7 groups

Class/Homework

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Tiles

#2(a,b...MODEL), #3, #4(just the sign),

Box

#5(a,c,d....show work for c,d using distributive property),

#6(a,b,c,d), #7, 8

&

Evaluate the following (Show work)

$$\frac{2 + [\,4 \times (-2 \times 3) - 10\,]}{3 + 2(10) \div 4}$$

Test Thursday, Sept. 29

#3)   −2°C   for 30 min   for 4 hr.

$6 + (-2 \times 8)$

$6 + (-16)$

-10