

Warm Up Grade 7



Date: Oct. 6

B ~~A~~ D M A S



Step 1 | Multiply
 2.53×7.1

$$\begin{array}{r} \overset{3}{2}.\overset{2}{5}3 \\ \times 7.1 \\ \hline 253 \\ + 17710 \\ \hline 17.963 \end{array}$$

Step 2 | Divide

$$2.4 \div 0.3 \quad \leftarrow \text{Not whole}$$

$$24 \div 3 = 8$$

Step 3 |

$$\begin{array}{r} 17.963 \\ + 8.000 \\ \hline 25.963 \end{array}$$

$$\begin{aligned} 1) & \underline{2.53 \times 7.1} + 2.4 \div 0.3 - 1 \\ &= 17.963 + 2.4 \div 0.3 - 1 \\ &= 17.963 + 8 - 1 \\ &= 25.963 - 1 \\ &= \boxed{24.963} \end{aligned}$$

2) Model $(-2) \times (-4)$

Redraw answer.

Remove 2 groups of neg 4

$$= \dots \dots \dots (+8)$$

b) $(-3) \times (+7)$ $(+7) \times (-3)$

$$\begin{array}{ccccccc} \text{ooo} & \text{ooo} & \text{ooo} & \text{ooo} & \text{ooo} & \text{ooo} & \text{ooo} \end{array}$$

$$= (-21)$$

3) Answer the following:

a) $(-17) \times (-26)$ Box

$$= (+442)$$

b) $(+11) \times (+9)$

$$= (+99)$$

10	7
20	6
$20 \times 10 = 200$ $6 \times 10 = 60$	$7 \times 20 = 140$ $6 \times 7 = 42$

$$\begin{array}{r} 200 \\ 140 \\ 60 \\ 42 \\ \hline 442 \end{array}$$

Sheet 30 Part A

1) $(14-2) \times 3$

$$12 \times 3$$

$$36$$

2) $35 \div (5+2)$

$$35 \div 7$$

$$5$$

3) $2 \times (7+3) + 5$

$$2 \times 10 + 5$$

$$20 + 5$$

$$25$$

4) $35 \div (5+2) - 4$

$$35 \div 7 - 4$$

$$5 - 4$$

$$1$$

5) $14 - 2 \times 3$

$$14 - 6$$

$$8$$

6) $35 \div 5 + 2$

$$7 + 2$$

$$9$$

7) $2 \times 7 + 3 + 5$

$$14 + 3 + 5$$

$$22$$

8) $35 \div 5 + 2 - 4$

$$7 + 2 - 4$$

$$9 - 4$$

$$5$$

9) $\underline{81} \div 9 + \underline{3 \times 4}$

$$9 + 3 \times 4$$

$$9 + 12$$

$$21$$

10) $63 \div 7 \div 3 + 8$

$$9 \div 3 + 8$$

$$3 + 8$$

$$11$$

11) $24 \div 6 \times 2 - 3$

$$4 \times 2 - 3$$

$$8 - 3$$

$$5$$

12) $4 + 18 \div 3 + 5 \times 2$

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

$$4 + 6 + 10$$

$$20$$

13)

$$3 \times (4 - 2) = 6$$

$$3 \times 2 = 6$$

14)

$$42 \div (6 + 1) = 6$$

$$42 \div 7 = 6$$

15)

$$(8 - 3) \times (4 + 6) = 50$$

$$5 \times 10 = 50$$

16)

$$12 \times (6 - 3) \div 9 = 4$$

$$12 \times 3 \div 9 = 4$$

$$36 \div 9 = 4$$

17)

$$48 \div 6 + 2 \times 9 = 26$$

$$8 + 2 \times 9 = 26$$

$$8 + 18 = 26$$

18)

$$(4 + 6) \times 2 \div 5 = 4$$

$$10 \times 2 \div 5 = 4$$

$$20 \div 5 = 4$$

Part B

1a) $4.6 + 5.1 - 3.2$

$$\begin{array}{r} 4.6 \\ + 5.1 \\ \hline 9.7 \\ - 3.2 \\ \hline 6.5 \end{array}$$

$$\begin{array}{r} 4.6 \\ + 5.1 \\ \hline 9.7 \\ - 3.2 \\ \hline 6.5 \end{array}$$

b) $8 - 3.6 \div 2$

$$\begin{array}{r} 8 \\ - 1.8 \\ \hline 6.2 \end{array}$$

$$\begin{array}{r} 1.8 \\ 2 \overline{) 3.6} \\ \underline{2} \\ 16 \\ \underline{16} \\ 0 \end{array}$$

c) $46.4 - 10.8 \times 3$

$$\begin{array}{r} 46.4 \\ - 32.4 \\ \hline 14 \end{array}$$

$$\begin{array}{r} 10.8 \\ \times 3 \\ \hline 32.4 \end{array}$$

$$\begin{array}{r} 46.4 \\ - 32.4 \\ \hline 14.0 \end{array}$$

$$\begin{array}{r} 8.0 \\ - 1.8 \\ \hline 6.2 \end{array}$$

d) $85.6 \div 0.4 \times 7$

$$\begin{array}{r} 214 \times 7 \\ \hline 1498 \end{array}$$

$$\begin{array}{r} 214 \\ 4 \overline{) 856} \\ \underline{8} \\ 05 \\ \underline{04} \\ 16 \end{array}$$

$$\begin{array}{r} 214 \\ \times 7 \\ \hline 1498 \end{array}$$

2) $2.5 \times 4 + 9.2 \div 0.1 - (21 - 5)$

$$2.5 \times 4 + 9.2 \div 0.1 - 6$$

$$10 + 9.2 \div 0.1 - 6$$

$$10 + 92 - 6$$

$$102 - 6$$

$$= 96$$

Showing Work

Step 1
 $21 - 5 = 6$

Step 2
 $\begin{array}{r} 2.5 \\ \times 4 \\ \hline 10.0 \end{array}$

Step 3
 $0.1 \overline{) 9.2} \rightarrow 1 \overline{) 92}$

$$\begin{array}{r} 102 \\ - 16 \\ \hline 86 \end{array}$$

$$\begin{array}{r} 92 \\ 1 \overline{) 92} \\ \underline{92} \\ 02 \\ \underline{02} \\ 0 \end{array}$$

6. Use front-end estimation to place the decimal point in each answer.

a) $32.47 - 6.75 = 25.72$

b) $118.234 + 19.287 = 137.521$

c) $17.9 - 0.8 = 17.1$

$$\begin{array}{r} 32 \\ - 6 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 118 \\ + 19 \\ \hline 137 \end{array}$$

$$\begin{array}{r} 17 \\ - 0 \\ \hline 17 \end{array}$$

b. a) $32.47 - 6.75 = 25.72$
 $\approx 32 - 7 = 25$

b) $118.234 + 19.287 = 137.521$
 $\approx 120 + 20 = 140$

c) $17.9 - 0.8 = 17.1$
 $\approx 18 - 1 = 17$

7. Winsome is being trained as a guide dog for a blind person.

At birth, she had a mass of 0.475 kg.

At 6 weeks, her mass was 4.06 kg.

From 6 weeks to 12 weeks, she gained 5.19 kg.

a) By how much did Winsome's mass change from birth to 6 weeks?
 From birth to 6 weeks Winsome gained 3.585 kg

b) What was her mass at 12 weeks?

$$\begin{array}{r} 3.95 \\ \cancel{4.06}^0 \\ - 0.475 \\ \hline 3.585 \end{array}$$

7. a) 6 week
 Birth

$$\begin{array}{r} 3.95 \\ \cancel{4.06}^0 \\ - 0.475 \\ \hline \end{array}$$

3.585 kg weight gain from birth-6 weeks

b) 4.06
 $+ 5.19$

9.25 kg at 12 weeks

8. Estimate to place the decimal point in each product.

Show your estimation strategy.

a) $9.3 \times 0.8 = 7.44$

b) $3.62 \times 1.3 = 4.706$

c) $11.25 \times 5.24 = 58.95$

Round
 $9 \times 0 = 0$ or $9 \times 1 = 9$

$3 \times 1 = 3$
 $11 \times 5 = 55$

8 a) $9.3 \times 0.8 = 7.44$
 $\approx 9 \times 1 = 9$

$$\begin{array}{r} 9.3 \\ \times 0.8 \\ \hline 7.44 \end{array}$$

b) $3.62 \times 1.3 = 4.706$
 $\approx 4 \times 1 = 4$

$$\begin{array}{r} 3.62 \\ \times 1.3 \\ \hline 1086 \\ + 3620 \\ \hline 4706 \end{array}$$

c) $11.25 \times 5.24 = 58.95$
 $\approx 11 \times 5 = 55$

$$\begin{array}{r} 11.25 \\ \times 5.24 \\ \hline 4500 \\ 22500 \\ 562500 \\ \hline 589500 \end{array}$$

9. A rectangular park has dimensions 2.84 km by 3.5 km.

What is the area of the park?

$$9. \quad A = l \times w \\ = 2.84 \times 3.5$$

$$\begin{array}{r} 2.84 \\ \times 3.5 \\ \hline 1420 \\ 8520 \\ \hline 9940 \end{array} \quad \approx 3 \times 3 = 9$$

3.6 11. Evaluate.

a) $5.9 + 3.7 \times 2.8$

b) $12.625 \times (1.873 + 2.127)$

c) $2.1 \div 0.75 + 6.38 \times 2.45$

11) a) $5.9 + 3.7 \times 2.8$
 $\underbrace{5.9 + 10.36}_{16.26}$

Step 1
 $\begin{array}{r} 3.7 \\ \times 2.8 \\ \hline 296 \\ + 740 \\ \hline 10.36 \end{array}$
 $\begin{array}{r} 10.36 \\ + 5.90 \\ \hline 16.26 \end{array}$

b) $12.625 \times (1.873 + 2.127)$
 $\underbrace{12.625 \times 4}_{50.5}$

$$\begin{array}{r} 1.873 \\ + 2.127 \\ \hline 4.000 \end{array}$$

$$\begin{array}{r} 12.625 \\ \times 4 \\ \hline 50.500 \end{array}$$

c) $2.1 \div 0.75 + 6.38 \times 2.45$
 $\underbrace{2.8 + 15.631}_{18.431}$

$$\begin{array}{r} 0.75 \overline{) 2.10} \\ \times 100 \quad \times 100 \\ \hline 75 \overline{) 210.0} \\ - 150 \\ \hline 600 \\ - 600 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 6.38 \\ \times 2.45 \\ \hline 3190 \\ + 25520 \\ + 127600 \\ \hline 15.6310 \end{array}$$

$$\begin{array}{r} 15.631 \\ + 2.800 \\ \hline 18.431 \end{array}$$

Class/Homework
Test Tomorrow

Test Review Worksheet

Worksheet solutions is on the next page

Solutions

Part A – Multiple Choice

1. (+) x (-) is always what as a product?
(a) (-) (b) (+) (c) Depends on the numbers (d) 0

2. The sum of 123.45 AND 2.7
(a) 120.75 (b) 125.15 (c) 126.15 (d) 133.315

123.45
+ 2.70

126.15

3. 62.7 x 12.16 would have what as the solutions? (Use decimal place or estimation)
(a) 7624.32 (b) 762.432 (c) 762432 (d) 76.2432

60x 10 = 600 so B

4. What is (-15) x (-3) equal to ?
(a) (-18) (b) (-45) (c) (-12) (d) (+45)

5. Find the difference of 14.001 and 5.39 using rounding to the ones place.
(a) 13.462 (b) 8.611 (c) 9.61 (d) IDK

14.001
- 5.390

8.611

6. In the question, 9.32 – 6.85 ÷ 7 + 21 x 6.7, which operation would you do first?
(a) addition (b) subtraction (c) multiplication (d) division

Part B – You must show work in order to obtain full value.

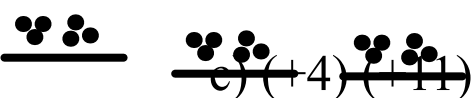
BEDMAS

1. Model the following integer multiplication with tiles
(a) (+7) x (-4) (b) (-3) x (-6)

0000 0000 0000 0000
0000 0000 0000



2) Find the product of the following:
a) (-8) (-7) b) (+7) (-12) c) (-4) (-11) d) (-8) (+2)



3) Use the distributive method to evaluate the following:
a) (-24) x (+70) = (-1680) b) (-86) x (-21)= (+1806)

=(+56) =(-84) =(+44) =(-16)

20 70
20 x 70
1400
4 x 70
280

1680

20 1
80 20 x 80 80 x 1
1600 80
6 6 x 20 6 x 1
120 6

1806

Part B – You must show work in order to obtain full value.

1. Round each decimal to the hundredths place

(a) 7.649

7.65

(b) 12.198

12.20

(c) 0.1244

0.12

4) Add the following

a) $21.6 + 7.258$

$$\begin{array}{r} 21.6 \\ + 7.258 \\ \hline \end{array}$$

b) $2.8 + 154.$

$$\begin{array}{r} 2.8 \\ + 154.0 \\ \hline 156.8 \end{array}$$

5) Subtract the following

a) $167.2 - 12.47$

$$\begin{array}{r} 167.20 \\ - 12.47 \\ \hline 154.73 \end{array}$$

b) $14.7 - 0.6$

$$\begin{array}{r} 14.7 \\ - 0.6 \\ \hline 14.1 \end{array}$$

6) Find the actual answer

(a) 3.56×0.3

hint 356×3

$$\begin{array}{r} 3.56 \\ \times 0.3 \\ \hline 1.068 \end{array}$$

(b) $1.689 \div 0.3 \rightarrow$

$$16.89 \div 3 = 5.63$$

$$\begin{array}{r} 5.63 \\ 3 \overline{) 16.89} \\ \underline{-15} \\ 18 \\ \underline{-18} \\ 09 \\ \underline{-9} \\ 0 \end{array}$$

7) Evaluate (no calculators).

(a) $31 - (7+5) \div 4 + 10$

$31 - 12 \div 4 + 10$

$31 - 3 + 10$

$28 + 10$

~~BADMAS~~
~~BADMAS~~

(b) $10 + 61.2 \times 0.3 + 12.96 \div 0.4 - 1$

(Show work on side of the paper)

Step 1

$$\begin{array}{r} 61.2 \\ \times 0.3 \\ \hline 18.36 \end{array}$$

Step 2 $12.96 \div 0.4$

$$\begin{array}{r} 32.4 \\ 4 \overline{) 129.6} \\ \underline{-12} \\ 09 \\ \underline{-8} \\ 16 \\ \underline{-16} \\ 0 \end{array}$$

Step 3

$10 + 18.36 = 28.36$

Step 4

$$\begin{array}{r} 28.36 \\ + 32.40 \\ \hline 60.76 \end{array}$$

$$\boxed{59.76}$$

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5) Sum of 3.41

$$1.21 + 2.2 = 3.41$$

$$\begin{array}{r} 3.41 \\ - 1.21 \\ \hline 2.20 \end{array} \leftarrow \text{many solutys so}$$

$$\begin{array}{r} 10.49 \\ - 9.77 \\ \hline 0.72 \end{array}$$

Difference of 0.72 seconds

7) a) 7.65 / h

works 15.5 h

$$\begin{array}{r} 3 \quad 2 \\ 7.65 \\ \times 15.5 \\ \hline 13825 \\ 38250 \\ + 76500 \\ \hline 118575 \end{array}$$

Kiah makes \$118.58
for working 15.5 hours

7b) $15.5 \div 2 \rightarrow$

$$\begin{array}{r} 7.75 \\ 2 \overline{) 15.50} \\ \underline{14} \quad \downarrow \\ 15 \quad \downarrow \\ \underline{14} \quad \downarrow \\ 1 \end{array} \leftarrow \text{hours in that week}$$

$$\begin{array}{r} 3 \quad 2 \\ 7.75 \\ \times 15.5 \\ \hline 2 \quad 2 \quad 3875 \\ 38750 \\ + 77500 \\ \hline 120.125 \end{array}$$

for working half the
time Kiah gets
\$120.13

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$$\begin{array}{r} 7.59 \\ \times 1.2 \\ \hline 1518 \\ 7590 \\ \hline \$19.08 \end{array}$$

$$\begin{array}{r} 6.29 \\ \times 1.2 \\ \hline 1258 \\ + 6290 \\ \hline 7.548 \end{array}$$

$$\begin{array}{r} 89.108 \\ - 7.548 \\ \hline 1.560 \end{array}$$

Saves \$1.56

10) $0.6 \overline{) 3.75} \rightarrow 6 \overline{) 37.500}$

$$\begin{array}{r} 6.25 \\ 6 \overline{) 37.500} \\ \underline{36} \\ 15 \\ \underline{12} \\ 30 \\ \underline{30} \\ 0 \end{array}$$

11) a) $8.11 + 6.75 \times 5.2 - 2.12$

$$\begin{array}{r} 8.11 + 35.1 - 2.12 \\ \hline 43.21 - 2.12 \\ \hline 41.09 \end{array}$$

$$\begin{array}{r} 6.75 \\ \times 5.2 \\ \hline 1350 \\ 33750 \\ \hline 35100 \end{array}$$

$$\left. \begin{array}{r} 8.11 \\ 35.10 \\ \hline 43.21 \end{array} \right\} - 2.12 = 41.09$$

b) $3.78 \times 2.25 - 4.028 \div 1.52$

$$\begin{array}{r} 3.78 \\ \times 2.25 \\ \hline 1890 \\ 7560 \\ 85050 \\ \hline 8.505 \end{array}$$

$$8.505 - 4.028 \div 1.52$$

$$8.505 - 2.65 = 5.855$$

$$\begin{array}{r} 4.028 \\ \div 1.52 \\ \hline 2.65 \end{array}$$

$$\begin{array}{r} 78.505 \\ - 2.650 \\ \hline 5.855 \end{array}$$

$$152 \overline{) 462.80}$$

$$\begin{array}{r} 2.65 \\ 152 \overline{) 462.80} \\ \underline{-304} \\ 988 \\ \underline{912} \\ 760 \\ \underline{760} \\ 0 \end{array}$$