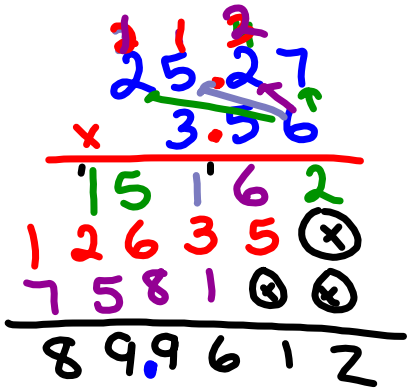
WARM UP GRADE 7

Show work and find the product or the quotient

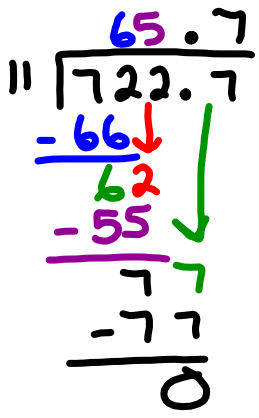
1)

a) 25.27 x 3.56



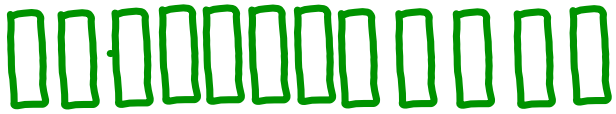
b) 72.27 ÷ 1.1

722.7 ÷ 11



2) Use tiles to find the quotient 2.4 ÷ 0.4 (Don't need to draw but use terms)

24 tenths ÷ 4 tenths = 6



$4\overline{)24}$ 6

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Homework Solutions

4. Estimate to choose the correct quotient for each division question.

Question	Possible Quotients		
a) 59.5 ÷ 5	119	11.9	1.19
b) 195.3 ÷ 0.2	9765	976.5	~~97.65~~
c) 31.32 ÷ 0.8	391.5	391.5	39.15

$\approx 60 \div 5 = 12$

$\rightarrow 195 \div 1 = 195$

$195 \div 0.2 \rightarrow 195$

c) $\approx 31 \div 1 = 31$

$\approx 200 \times 5 = 1000$

or $\approx 2000 \div 2 = 1000$

a) $59.5 \div 5$

$$5 \overline{)59.5} \quad 11.9$$

-5

$0\,9$

-5

45

-45

0

$59.5 \div 5 = 11.9$

b) $195.3 \div 0.2$

$0.2 \overline{)195.3} \rightarrow 2 \overline{)1953.0} \quad 976.5$

-18

15

-14

13

12

10

-10

0

$195.3 \div 0.2 = 976.5$

c) $31.32 \div 0.8$

$0.8 \overline{)31.32} \rightarrow 8 \overline{)313.2} \quad 39.15$

-24

73

-72

12

-8

40

-40

0

$31.32 \div 0.8 = 39.15$

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Homework Solutions

5a) $1.5 \div 0.6$

$0.6\overline{)1.5}$ (×10, ×10) →

$6\overline{)15.0}$

2.5

12 ↓

30

30

0

b) $2.24 \div 0.7$

$0.7\overline{)2.24}$ →

$7\overline{)22.4}$

3.2

21 ↓

14

14

0

c) $1.28 \div 0.8$

$0.8\overline{)1.28}$ (×10, ×10) →

$8\overline{)12.8}$

1.6

8 ↓

48

48

0

d) $2.16 \div 0.9$

$0.9\overline{)2.16}$ →

$9\overline{)21.6}$

2.4

18 ↓

36

36

0

Class/Homework

Test Tuesday Feb. 7

no blanks just =

cannot calculator

Big = Small

use calculator

pg. 106 & 107

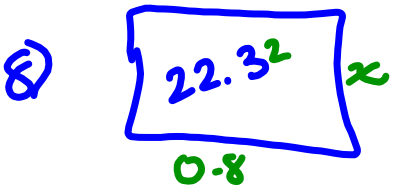
#1, #7, #8, #9, #10, #11, #12, #13

_____(3 days time, Test on First half of Unit 3)

$A = L \times w$

$L = A \div w$

$w = A \div L$

8) 

$L = 22.32 \div 0.8$

1. Use Base Ten Blocks to divide. Record your work on grid paper.

a) 0.8 ÷ 0.1 b) 1.2 ÷ 0.3 c) 2.7 ÷ 0.6 d) 2.2 ÷ 0.4

a) 8 tenths ÷ 1 tenth = 8

b) 12 tenths ÷ 3 tenths = 4 (4 groups of 3 tenths)

c) 27 tenths ÷ 6 tenths

27 tenths ÷ 3 tenths = 9 groups

so $4\frac{1}{2}$ groups of 6

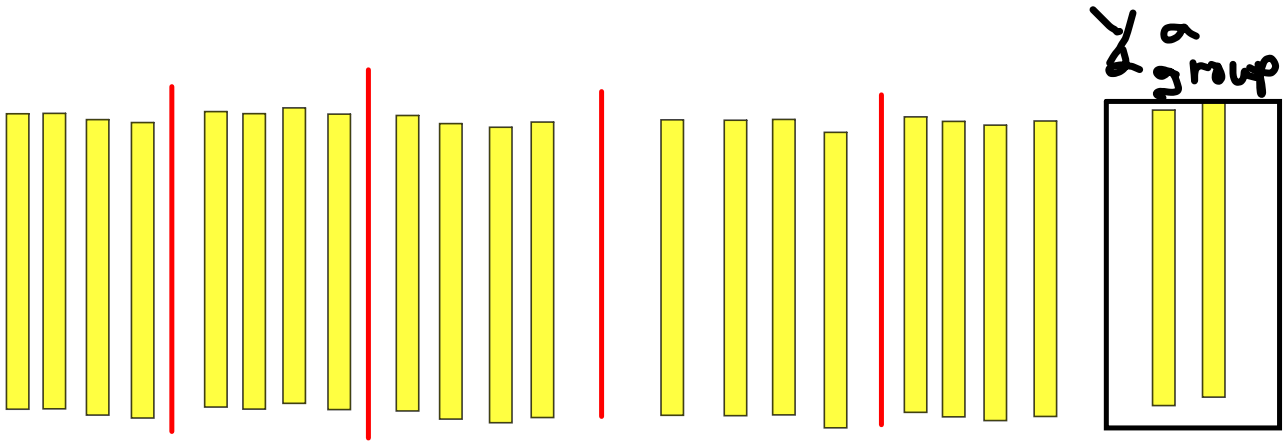
4.5

d) 22 tenths ÷ 4 tenths

20 tenths ÷ 4 tenths = 5

24 tenths ÷ 4 tenths = 6

so 22 tenths ÷ 4 tenths = 5.5



2. Divide. Describe any patterns you see.

a) 124.5 ÷ 10 12.45
124.5 ÷ 100 1.245
124.5 ÷ 1000 0.1245
124.5 ÷ 10 000
0.01245

b) 124.5 ÷ 0.1 1246
124.5 ÷ 0.01 12 450
124.5 ÷ 0.001 124 500
124.5 ÷ 0.0001 1 245 000

3. Why do all these division statements have 6 as the answer?

a) 30 ÷ 5 b) 3.0 ÷ 0.5 c) 0.3 ÷ 0.05 d) 300 ÷ 50

Which one is easiest to calculate? Explain.

They are basically the same but the decimals are in different places

a) $30 \div 5 = 6$

b) $3.0 \div 0.5 = 6$

c) $0.3 \times 100 \div 0.05 \times 100$

d) $300 \div 50 = 6$

5. Use paper and pencil to divide.

a) 1.5 ÷ 0.6 b) 2.24 ÷ 0.7 c) 1.28 ÷ 0.8 d) 2.16 ÷ 0.9

a)
$$0.6\overline{)1.5} \quad 6\overline{)15.0} \quad 2.5 \quad 12 \downarrow \quad 30 \quad 30 \quad 0$$

b)
$$0.7\overline{)2.24} \quad 7\overline{)22.4} \quad 3.2 \quad 21 \downarrow \quad 14 \quad 14 \quad 0$$

c)
$$0.8\overline{)1.28} \quad 8\overline{)12.8} \quad 1.6 \quad 8 \downarrow \quad 48 \quad 48 \quad 0$$

d)
$$0.9\overline{)2.16} \quad 9\overline{)21.6} \quad 2.4 \quad 18 \downarrow \quad 36 \quad 36 \quad 0$$

7) Toonie is 0.2cm thick. How many toonies are in a stack of toonies 17.4cm high?

$0.2 \overline{)17.4} \rightarrow 2 \overline{)174.}$

87
-16
14
-14
0

There is 87 toonies

8) Area = $22.32 m^2$
width = 0.8 m
length = ?

length = Area ÷ width
length = 22.32 ÷ 0.8

$0.8 \overline{)22.32} \rightarrow 8 \overline{)223.2}$

27.9
-16
63
56
72
-72
0

length is 27.9 m

9) 0.4kg cost $1.34

a) Estimate 0.4 is close to 0.5kg
so 2 x 0.5 = 1kg thus Estimate cost is 2 x 1.34 ≈ $2.68

b) How many 0.4kg are in 1kg ?

$0.4 \overline{)1} \rightarrow 4 \overline{)10.0}$

2.5
8
20
-20
0

2.5 x cost

1.34
x 2.5
670
+2680
3350

Actual cost for 1kg is $3.35

c) Suppose you spend $10 on oranges. What mass did you buy?

___ x 1.34 = $10 or

or

use calculator

10 ÷ 1.34 (for 0.4 kg)
= 7.462686567 (groups of 0.4kg)

7.462686567 x 0.4 kg = 2.985074
≈ 3 kg

10) fabric length = 9.88m

Alex needs 14, 0.8m pieces

a) How many 0.8 pieces can Alex cut from the remnant?

9.88 ÷ 0.8

0.8 ⟌9.88 → 8 ⟌98.80 = 12.35

98 − 8 = 18; 18 − 16 = 28; 28 − 24 = 40; 40 − 40 = 0

Alex can get 12.35 out of the fabric (Assume no waste)

b) Will Alex have all the fabric he needs?

No, he will need more

c) How much more is needed?

14 × 0.8 = 11.2 needed

has 9.88

11.20 − 9.88 = 1.32

Need 1.32 m more

Method 2

or

14.00 pieces − 12.35 have pieces = 1.65 pieces needed

1.65 # of pieces × 0.8 m length of = 1.320

Need 1.32 m more

d) Needs 14, 0.7m pieces of fabric

0.7⟌9.88 → 7⟌98.800000 = 14.112857

7; 28; 28; 08; 7; 10; 7; 30; 28; 20; 14; 60; 56; 40; 35; 50; 49; 10

repeat

Remnant of 9.88m will do 14.1 pieces so yes he will have enough if piece size is 0.7

Method 2

14 × 0.7 = 9.8 → is needed

have 9.88 so yes

11) ___ ÷ ___ = 0.12

a) 3 × 0.12 = 0.36

50

Many answ

0.36 ÷ 30 = 0.12

b) 13 × 0.12 =

1.3
×0.12
26
130
.156

so 0.156 ÷ 1.3 = 0.12

12) Alicia earned $346.88 in 37.5 hours
How much per hour?

37.5 ⟌346.88 → 375 ⟌3468.8

9.2501...
-3375
938
750
1880
1875
500

Alicia earns $9.25 per hour

13) 237 ÷ 7 = 33.857

7 ⟌237.000...
21
27
21
60
56
40
35
50

a) 237 ÷ 0.7
⇓
2370 ÷ 7
⇓
338.57

b) 2.37 ÷ 0.07
⇓
237 ÷ 7
33.857

c) 23.7 ÷ 7
33.857

d) 2370 ÷ 70
237 ÷ 7 = 33.857