

SHOW

1. type 800 words in 12 minutes <u>66.67</u> words per minute	2. 192 students in 4 buses <u>48</u> in each bus
3. 357 miles in 5 hours <u>71.4</u> miles per hour	4. 8 ducks for \$23.60 \$ <u>2.95</u> per duck
5. a 10-lb bag of cherries for \$33.49 \$ <u>3.35</u> per lb	6. 12 chickens lay 30 eggs <u>2.5</u> eggs per chicken
7. Earn \$134 in 8 hours <u>\$16.75</u> per hour	8. 3 pizzas for \$19.99 <u>\$6.67</u> each
9. 3500 calories for 6 servings of pie <u>583.33</u> calories per serving	10. 351 chairs in 27 rows <u>13</u> chairs in each row
11. \$37.29 for 2 pairs of jeans. <u>\$18.65</u> each	12. \$37.29 for 2 pairs of ducks <u>\$18.65</u> per duck
13. 24 senior citizens in 12 RVs <u>2</u> in each RV	14. 7 penguins for \$188.88 <u>\$26.98</u> each

Which is the better buy?

15. A 12.5 oz bag of Doritos for \$3.79 or a 3 oz bag for \$1.00.
\$0.30 per oz | \$0.33 per oz

16. 12 bars of soap for \$10.00 or 5 bars of soap for \$4.00.
\$0.83 per bar | \$0.80 per bar

17. A box of 84 penguins for \$13.597 or a bag of 50 penguins for \$795.95.
\$161.87 per penguin | \$15.92 per penguin

18. 5 gallon bucket of paint for \$97.45 or a 1 gallon bucket of paint for 21.95.
\$19.49 per gallon | \$21.95 per gallon

19. 48oz big gulp for \$1.39 or a 32 oz coke for \$.89.
\$0.03 per oz | \$0.03 per oz

20. 50 head of cattle for \$24,500 or 37 head of cattle for \$18,870
490 per cow | 510 per cow

\$10
12

\$4
5

same!

SHOW

- | | | |
|--|---|--|
| 1. Unit price <u>\$8/kg</u>
London broil
1.35 kg for \$10.80 | 2. Unit price <u>\$2.25/kg</u>
Apples
2.2 kg for \$4.96 | 3. Unit price <u>\$.41/can</u>
Green beans
5 cans for \$2.05 |
| 4. Unit price <u>\$2.20/kg</u>
Carrots
1.5 kg for \$3.30 | 5. Unit price <u>\$5.60/L</u>
Olive oil
0.7 L for \$3.92 | 6. Unit price <u>\$4.40/kg</u>
Raisins
0.8 kg for \$3.52 |
| 7. Unit price <u>\$3.60/L</u>
Molasses
0.35 L for \$1.26 | 8. Unit price <u>\$5.42/kg</u>
Walnuts
0.65 kg for \$3.52 | 9. Unit price <u>\$4.60/kg</u>
Cheddar cheese
1.25 kg for \$5.75 |
| 10. Unit price <u>\$2.20/kg</u>
Bananas
0.45 kg for \$0.99 | 11. Unit price <u>\$3.80/kg</u>
Ham
2.6 kg for \$9.88 | 12. Unit price <u>\$1.10/kg</u>
Tomatoes
1.7 kg for \$1.87 |

Find the unit price of each item. Which choice has the lower unit price?

- | | |
|---|---|
| 13. Strawberries
☒ A 2 baskets for \$0.89 <u>\$.45</u> /basket
☐ B 3 baskets for \$1.37 <u>\$.46</u> /basket | 14. Tomato sauce
☒ A 5 cans for \$1.00 <u>\$.20</u> /can
☐ B 3 cans for \$0.67 <u>\$.22</u> /can |
| 15. Cheese
☒ A 0.45 kg for \$1.35 <u>\$.30</u> /kg
☐ B 0.6 kg for \$1.92 <u>\$.32</u> /kg | 16. Paper towels
☐ A 3 rolls for \$2.37 <u>\$.79</u> /roll
☒ B 2 rolls for \$1.38 <u>\$.69</u> /roll |
| 17. Mushrooms
☒ A 0.45 kg for \$0.99 <u>\$2.20</u> /kg
☐ B 0.75 kg for \$1.71 <u>\$2.28</u> /kg | 18. Chicken
☐ A 1.85 kg for \$3.33 <u>\$1.80</u> /kg
☒ B 1.4 kg for \$2.31 <u>\$1.65</u> /kg |



Understanding conversions using the metric system

Part A: Metric Investigation (20 minutes)

Supplies: A partner, a meter stick, a shoe, and a phone

Take measurements of each of the following items and write down the scale

	PHONE		SHOE		PERSON
	140 mm		_____ mm		_____ mm
	14 cm		_____ cm		_____ cm
	.14 m		_____ m		_____ m

What do you notice about all of the numbers on each item measurement?

PART B: Converting Metric examples

Kilo	Hecto	Deca (da)	BASE	Deci (d)	Centi	Milli
X/1,000	X/100	X/10	X	10X	100X	1,000X
			X			

Metric conversions have base units of:

_____ (length); _____ (liquid); _____ (weight)

Stair rule. Find which unit you are starting at. If you are moving to the right move the decimal the how many "stairs" you are going. If you are moving left, you move

PART B: Converting Metric examples

Kilo	Hecto	Deca (da)	BASE	Deci (d)	Centi	Milli
X/1,000	X/100	X/10	X	10X	100X	1,000X
			X			

Metric conversions have base units of:

METER (length); LITER (liquid); GRAM (weight)

Stair rule. Find which unit you are starting at. If you are moving to the right move the decimal the how every many "stairs" you are going. If you are moving left, you move the decimal to the left for the number of stairs you are going,

Using the rule convert the following metric units.

1) .03 km is how many cm?

Kilo	Hecto	Deca (da)	BASE	Deci (d)	Centi	Milli
X/1,000	X/100	X/10	X	10X	100X	1,000X

.03000 → 3000 cm

2) 75 mL is how many kL?

Kilo	Hecto	Deca (da)	BASE	Deci (d)	Centi	Milli
X/1,000	X/100	X/10	X	10X	100X	1,000X

000075 → .000075 KL

3) 2.007 g is how many mg?

Kilo	Hecto	Deca (da)	BASE	Deci (d)	Centi	Milli
X/1,000	X/100	X/10	X	10X	100X	1,000X

2.007 → 2007 mg

Metric Investigation - Word

TABLE TOOLS

DESIGN LAYOUT

Hannah Oldham

Which unit would produce a bigger number?

4) m or cm	5) m or <u>km</u>	6) cm or <u>km</u>	7) g or mg	8) <u>kg</u> or g?
cm	m	cm	mg	g

THIS CLOSER TO THE RIGHT. THE LARGER THE NUMBER
 MOVE TO RIGHT GET BIGGER MOVE TO LEFT GET SMALLER

Part C: Practice conversions

1) 4 km to m	2) 500 cm to m	3) 30 mm to cm	4) 93.5 cm to m
5) 2340 mg to g	6) 2500 mm to cm	7) 2000 mm to m	8) 800 m to km
9) 3 m to cm	10) 385 mL to L	11) 3.64 m to cm	12) 1.45 kg to g
13) 3000 m to km	14) 50 mm to cm	15) 2000 mm to m	16) 2386 m to km
17) 3482 g to kg	18) 9.6 cm to mm	19) 2.5 m to cm	20) 6 km to m

PAGE 2 OF 3 444 WORDS 110%

Metric Investigation - Word

TABLE TOOLS

DESIGN LAYOUT

Hannah Oldham

Part C: Practice Conversions

1) 4 km to m 4,000 m	2) 500 cm to m 5 m	3) 30 mm to cm 3 cm	4) 93.5 cm to m .935 m
5) 2340 mg to g 2.34 g	6) 2500 mm to cm 250 cm	7) 2000 mm to m 2 m	8) 800 m to km .8 km
9) 3 m to cm 300 cm	10) 385 mL to L .385 L	11) 3.64 m to cm 364 cm	12) 1.45 kg to g 1,450 g
13) 3000 m to km 3 km	14) 50 mm to cm 5 cm	15) 2000 mm to m 2 m	16) 2386 m to km 2.386 km
17) 3482 g to kg 3.482 kg	18) 9.6 cm to mm 96 mm	19) 2.5 m to cm 250 cm	20) 6 km to m 6,000 m
21) 300 mm to m .3 m	22) 15 g to mg 15,000 mg	23) 1.75 L to mL 1,750 mL	24) 5.6 m to cm 560 cm

Part D: Which is bigger?

Compare the measurements using <, >, or =. ****SHOW YOUR WORK****

21) 300 mm to m	22) 15 g to mg	23) 1.75 L to mL	24) 5.6 m to cm
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Part D: Which is bigger?

Compare the measurements using <, >, or =. ****SHOW YOUR WORK****

1. $\underline{.63 \text{ cm}}$ < $\underline{6 \text{ m}}$
 $\underline{.63 \text{ m}}$
2. $\underline{.43 \text{ mg}}$ < $\underline{5 \text{ g}}$
 $\underline{.043 \text{ g}}$
3. $\underline{5 \text{ g}}$ > $\underline{508 \text{ mg}}$
 $\underline{.508 \text{ g}}$
4. $\underline{3.6 \text{ m}}$ > $\underline{36 \text{ cm}}$
 $\underline{.36 \text{ m}}$

5. $\underline{1500 \text{ mL}}$ = $\underline{1.5 \text{ L}}$
 $\underline{1.5 \text{ L}}$
6. $\underline{7 \text{ g}}$ > $\underline{698 \text{ mg}}$
 $\underline{.698 \text{ mg}}$
7. ~~$\underline{536 \text{ cm}}$ < $\underline{53.6 \text{ dm}}$~~
8. ~~$\underline{11 \text{ hL}}$ < $\underline{110 \text{ dkl}}$~~