

Name: _____ Date: _____

Metric Conversion

Convert each to the indicated unit.

1. 10 mm = 1cm KHDBDCM (R1)
 2. 1km = 1000 m
3. 300dcl = 3000 l KHDBDCM (R1)
 4. 37.5 cg = 375mg
5. 25hg = 250000 g KHDBDCM (R4)
 6. 300l = .3 kl
7. 3000 mm = 30dm KHDBDCM (R2)
 8. 870 g = 87dkg

Which is the most? Circle the largest amount in each box.

9. <div style="text-align: center; margin-top: 10px;"> 10m 100cm <u>10hm</u> </div>	10. <div style="text-align: center; margin-top: 10px;"> 1kg = <u>1000g</u> <u>2000g = 2000g</u> 3000cg = <u>30g</u> </div>	11. <div style="text-align: center; margin-top: 10px;"> <u>2l</u> <u>400cl</u> 700ml </div>	12. <div style="text-align: center; margin-top: 10px;"> <u>5km = 5000m</u> 6000cm = <u>60m</u> 4000m = <u>4000m</u> </div>
	KHDBDCM		KHDBDCM

Answer the following questions. Show all work.

13. Addison is measuring two line segments. The first is 30 cm long. The second line segment is 500 mm long. What is the sum of the two line segments?

Sum = 800mm [OR] 80cm

14. Nick wants to send a box of oranges to a friend by mail. The box of oranges cannot exceed a mass of 10 kg. If each orange has a mass of 200 g, what is the maximum number of oranges he can send?

$10\text{kg} = 10,000\text{g}$
 $\frac{10,000\text{g}}{200\text{g}} = 50\text{ oranges}$

$200\text{g} = 0.2\text{kg}$
 $\frac{10\text{kg}}{0.2\text{kg}} = 50\text{ oranges}$

[OR]

15. Nate grew 10 cm in 1 year. He is now 1.6 m tall. How tall was he 1 year ago?

Nate's height last year was 150cm [OR] 1.5m.

16. Sofia rode 2 km on her bike. Her friend Tori rode 3000m on her bike. Who rode the farthest and how much farther did they ride?

$2\text{km} = 2,000\text{m}$ Sofia
 $3\text{km} = 3,000\text{m}$ Tori

Tori rode the farthest by 1000m [OR] 1 km.

17. Mrs. MacIntyre has a rectangular garden. The length is 10 meters and the width is 1.2 dm. What is the perimeter of her garden?

202.4 dm OR 20.24 m

18. Mrs. Smith has a crib for her new baby Jeremiah. The length of the crib is 45 cm and with width is .25 meters. What is the perimeter of the crib?

$45 \text{ cm} = \underline{.45 \text{ m}}$
 $25 \text{ cm} = \underline{.25 \text{ m}}$
 KHDBDCM
 $P = 45 + 45 + 25 + 25 = 140 \text{ cm}$
OR
 $P = .45 + .45 + .25 + .25 = 1.4 \text{ m}$

19. Ms. Wiggins is baking a casserole for the other math teachers. The pan she is using has a length of 14 cm and a width of 1 dm. What is the perimeter of the pan?

48 cm OR 4.8 dm

Use greater than (>), less than (<), or equals to (=) to compare the amounts.

20. $3 \text{ km} > 2000 \text{ m}$
 3000 m

21. $5 \text{ cm} = 50 \text{ mm}$

22. $5 \text{ km} > 40 \text{ dkm}$
 500

$3 \text{ km} = \underline{3,000 \text{ m}}$
 KHDBDCM

$5 \text{ km} = \underline{500 \text{ dkm}}$
 KHDBDCM

Review

23. Solve $2x - 3y = 24$ for (x)

$x = \frac{3y + 24}{2}$ OR $x = \frac{3}{2}y + 12$

24. The sum of 3 consecutive even numbers is 504. Find the three numbers.

$1^{\text{st}}: x = 166$
 $2^{\text{nd}}: x + 2 = 168$
 $3^{\text{rd}}: x + 4 = 170$
 $3x + 6 = 504$
 $\quad -6 \quad -6$
 $3x = 498$
 $\quad \underline{3} \quad \underline{3}$

25. Your phone service plan costs \$10 per month and .15 cents per minute to make a call.

A. Write an equation that represents the cost to use your phone per month.

$y = .15x + 10$ (minutes, Cost)

B. If you have no more than 30 dollars to spend on your phone, what is the maximum number of minutes you can use your phone?

$x = \text{minutes}$
 $y = \text{Cost} = 30$
 $30 = .15x + 10$
 $\quad -10 \quad -10$
 $20 = .15x$
 $\quad \underline{.15} \quad \underline{.15}$
 $x = 133.\bar{3}$ minutes