Name_____Date_____

Pre-Algebra – Measurement Review

Show work and make your answers easy to find.

Convert each measurement to the units indicated. Round to the nearest tenth if needed (one decimal place).

1) 24 feet = _____ inches

2) 530 cm = _____ m

3) $10\frac{3}{4}$ lbs = _____ oz

4) 3.7 Tons = _____ lbs

5) 96 hours = _____ days

6) 800 m = _____ km

7) 18 qt = _____ gal

8) $7\frac{2}{3}$ yd = _____ feet

9) Add 1 foot 8 inches with 2 feet 5 inches.

11) Multiply 5 m 70 cm by 3.

10) Subtract 800 lbs from 1 Ton 300 lbs.

12) Divide 19 gal 1 qt by 7.

13) Larry ran 100 yards six times.
In total, how far did he run **in feet?**

14) A circle is 1 foot long. A square is 10 inches long.
Which is longer: 8 circles or 9 squares? By how much?

15) An elephant weighs 4 Tons. How many pounds is this?

16) Marie's first marathon took her 5 hours 33 minutes to finish. Her second
marathon took 4 hours 49 minutes.
What is her average time for the marathon?

17) If you buy eight packages of cheese, each weighing 10 ounces, **how many pounds** of cheese do you have?

18) William has 2 gallons of cider. If he wants to have at least 1 gallon 2 quarts for tomorrow, how much cider can he drink today?

19) Pedro is 5 feet 8 inches tall. Luz is 5 feet 2 inches tall. Donna is 4 feet 11 inches tall.
What is the average height of these three people?

20) A 3 Ton 200 lb. load of wood was divided equally among five trucks.
How much wood was on each truck?

21) Last time Pete's baby was weighed, she was 16 pounds 4 ounces. This time the baby weighs 18 pounds 1 ounce.
How much weight has the baby gained since last time?

22) Kevin has a total of 7 hours 20 minutes to meet with students.
How many 5-minute sessions can he schedule?

Answers to Review

1) $\dfrac{1\,ft}{24\,ft} = \dfrac{12\,inches}{?\,inches}$

   $\boxed{288\ inches}$

2) $\dfrac{1\,m}{?\,m} = \dfrac{100\,cm}{530\,cm}$

   $\boxed{5.3\ m}$

3) $10\frac{3}{4} = \dfrac{43}{4}$

   $\dfrac{1\,lb}{\frac{43}{4}\,lbs} = \dfrac{16\,oz}{?\,oz}$

   $\boxed{172\ oz}$

4) $\dfrac{1\,T}{3.7\,T} = \dfrac{2000\,lbs}{?\,lbs}$

   $\boxed{7,400\ lbs}$

5) $\dfrac{1\,day}{?\,days} = \dfrac{24\,hrs}{96\,hrs}$

   $\boxed{4\ days}$

6) $\dfrac{1\,km}{?\,km} = \dfrac{1,000\,m}{800\,m}$

   $\boxed{0.8\ km}$

7) $\dfrac{1\,gal}{?\,gal} = \dfrac{4\,qt}{18\,qt}$

   $\boxed{4.5\ gal}$

8) $7\frac{2}{3} = \dfrac{23}{3}$

   $\dfrac{1\,yd}{\frac{23}{3}\,yd} = \dfrac{3\,ft}{?\,ft}$

   $\boxed{23\ ft}$

9)
```
    1 ft  8 in
 +  2 ft  5 in
 _____
    3 ft 13 in
 +1 ft  -12 in
 _____
```
   $\boxed{4\,ft\ 1\,in}$

10)
```
     0   23 00
     1 Ton 300 lbs
   -       800 lbs
 _____
```
   $\boxed{1,500\ lbs}$

11)
```
    5 m   70 cm
 x          3
 _____
   15 m  210 cm
 + 2 m  -200 cm
 _____
```
   $\boxed{17m\ 10\,cm}$

12)
   $\boxed{2\ gal\ 3\,qt}$
```
        2 gal 3 qt
      _____
   7 / 19 gal 1 qt
     -14 gal
     _____
       5 gal →  +20 qt
               21 qt
             - 21 qt
             _____
                  0
```

13) 100 yd × 6 = 600 yd

$\frac{1 \text{ yd}}{600 \text{ yd}} = \frac{3 \text{ ft}}{? \text{ ft}}$ → $\boxed{1,800 \text{ ft}}$

14) 8 circles × 2 ft = ~~80 oz~~ 8 ft

9 squares × 10 in = 90 in.

8 ft = 96 in.

$\boxed{\text{Circles are bigger by 6 in.}}$

15) $\frac{1 \text{ Ton}}{4 \text{ Tons}} = \frac{2000 \text{ lbs}}{? \text{ lbs}}$

$\boxed{8000 \text{ lbs}}$

16)   5 hr 33 mm
    + 4 hr 49 mm
    ─────────────
      9 hr 82 mm
    + 1 hr −60 mm
    ─────────────
     10 hr 22 mm

$\boxed{5 \text{ hr } 11 \text{ mm}}$ ← Answer

2 ⟌ 10 hr 22 mm

17) 8 × 10 = 80 ounces

$\frac{1 \text{ lb}}{? \text{ lb}} = \frac{16 \text{ oz}}{80 \text{ oz}}$ → $\boxed{5 \text{ lbs}}$

18) $\overset{1}{\cancel{2}}$ gallons $\overset{4}{\cancel{8}}$ qt
    − 1 gallon 2 qt
    ────────────────────

$\boxed{\begin{array}{c} 0 \text{ gal } 2 \text{ qt} \\ \text{or} \\ 2 \text{ qt} \end{array}}$

19)   5 ft. 8 in
       5 ft. 2 in.
    r 4 ft. 11 in
    ─────────────────
      14 ft 21 in.
    + 1 ft −12 in
    ─────────────────
      15 ft 9 in

$\boxed{5 \text{ ft } 3 \text{ in.}}$
3 ⟌ 15 ft 9 in.

20) $\boxed{0 \text{ Tons } 1,240 \text{ lbs}}$ or $\boxed{1240 \text{ lbs}}$
    5 ⟌ 3 Ton 200 lb
      − 0 Ton
    ───────────────────
      3 Tons → +6000 lbs
                6200 lbs

21) $\overset{17}{\cancel{18}}$ lbs $\overset{17}{\cancel{1}}$ oz
     − 16 lbs 4 oz
    ────────────────────
    $\boxed{1 \text{ lb } 13 \text{ oz}}$

22) 7 hrs 20 mm = 440 mm.

440 mm ÷ 5 mm = $\boxed{88 \text{ sessions}}$