Remote Learning Packet

There is no need to submit this packet at the end of the week. Enjoy your summer break!

Week 9: May 25-29, 2020
Course: 7th Grade Pre-Algebra
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Monday, May 25

Happy Memorial Day! No School!

Tuesday, May 26 - Friday May 29

No speed tests this week! (Although if you want to keep doing them all summer just to improve your skills for next year, we would not object…)

Cumulative Review, pp. 436-437, Exercises, 2-38, even, and Problems, 2-8, even

After you complete the review, you may look at the answer key to check your solutions.

NOTE: You will NOT need to scan your answers or return this assignment in any way. Have a fabulous summer! We look forward to seeing you all in the fall!

2. $\dfrac{16+9}{32+8} = \dfrac{25}{40} = \boxed{\dfrac{5}{8}}$

4. $4x - y + xy + 3y =$
$\boxed{4x + xy + 2y}$

6. $3p^2(p+5) =$
$\boxed{3p^3 + 15p^2}$

8. $\dfrac{8}{11} - \dfrac{1}{3} =$

$\dfrac{8}{11} \cdot \dfrac{3}{3} = \dfrac{24}{33}$

$-\dfrac{1}{3} \cdot \dfrac{11}{11} = -\dfrac{11}{33}$

$\boxed{\dfrac{13}{33}}$

10. $-1\dfrac{1}{2} \div -2\dfrac{1}{2} =$

$-\dfrac{3}{2} \div -\dfrac{5}{2} = -\dfrac{3}{2} \times -\dfrac{2}{5} = \boxed{\dfrac{3}{5}}$

12. $-3 - 7 = x + 1$
$-10 = x + 1$
$\underline{-1 \qquad -1}$
$\boxed{-11 = x}$

14. $x + (-9) > -2$
$\underline{+9 \qquad +9}$
$\boxed{x > 7}$

16. $11 - x > 0$
$\underline{+x \quad +x}$
$\boxed{11 > x \text{ or } x < 11}$

18. $C = 343.2 \qquad C = 2\pi r$

$343.2 = 2\left(\dfrac{22}{7}\right)r$

$\left(\dfrac{7}{44}\right)343.2 = \dfrac{44}{7}r\left(\dfrac{7}{44}\right)$

$\boxed{r = 54.6}$

20. $C = 897.6 \qquad C = 2\pi r$

$897.6 = 2\left(\dfrac{22}{7}\right)r$

$\left(\dfrac{7}{44}\right)897.6 = \dfrac{44}{7}r\left(\dfrac{7}{44}\right)$

$\boxed{r = 142.8}$

22. What is 125% of 89?

$x = 1.25 \cdot 89$
$\boxed{x = 111.25}$

24. What percent of 75 is 35?
$\dfrac{x \cdot 75}{75} = \dfrac{35}{75}$

$x = 46\dfrac{50}{75} = \boxed{46\dfrac{2}{3}\%}$

$\begin{array}{r} .46\frac{50}{75} \\ 75\overline{)35.0} \\ \underline{-300} \\ 500 \\ \underline{-450} \\ 50 \end{array}$

26. 35 is 8% of what number?
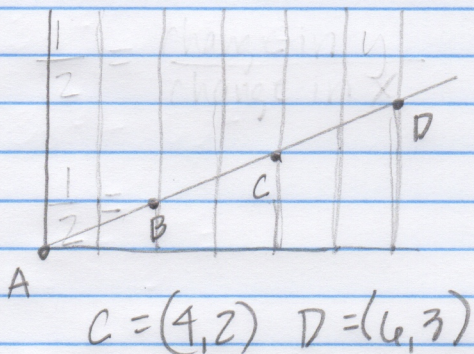$\dfrac{100}{8} \cdot 35 = \dfrac{8}{100}x \cdot \dfrac{100}{8}$
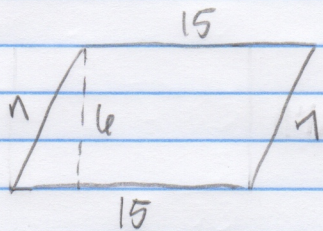
$\boxed{x = 437\dfrac{1}{2}}$

28. $A(0,0)$ $m = \dfrac{y_2 - y_1}{x_2 - x_1}$

    $B(2,1)$

    $C(4,?)$

    $D(?,3)$ $m = \dfrac{1-0}{2-0} = \boxed{\dfrac{1}{2}}$

$C = (4,2) \quad D = (6,3)$

30.

$A = b \cdot h = 15 \cdot 6 = \boxed{90 \, cm^2}$

$P = 2L + 2W = 2(15) + 2(7) =$

           $30 + 14 = \boxed{44 cm}$

32.   12, 16, 20

$12^2 + 16^2 \bigcirc 20^2$

$144 + 256 \bigcirc 400$

    $400 = 400$ $\boxed{Yes}$

34.   9, 12, 15

$9^2 + 12^2 \bigcirc 15^2$

$81 + 144 \bigcirc 225$

    $225 = 225$

    $\boxed{Yes}$

36. $5! = 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 = \boxed{120}$

38. $7! = 7 \cdot 6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 = \boxed{5040}$

Problems:

2. $\dfrac{1}{4} \dfrac{cups}{hour} \times \dfrac{\overset{6}{24} \, hours}{1} = \boxed{6 \, cups}$

4.   Carbon $= 4$ Flourine $= -1$

    $4c + (-1)f = 0$

    $4(1) + -1f = 0$

    $4 - f = 0$

    $\boxed{4 = f}$ $\boxed{4 \, atoms}$

6.
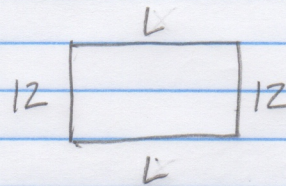
$P = 2W + 2L$

$54 = 2(12) + 2L$

$54 = 24 + 2L$

$\underline{-24 \quad -24}$

$\dfrac{30}{2} = \dfrac{2L}{2}$

$\boxed{L = 15}$

$A = W \cdot L$

$= 12 \cdot 15$

$= \boxed{180 \, m^2}$

8.

$A = L \cdot W =$
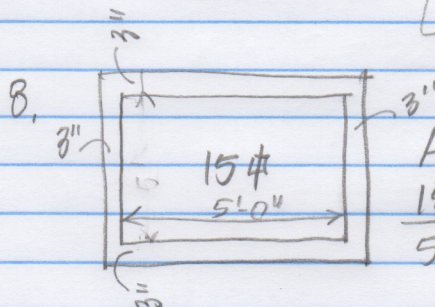
$\dfrac{15}{5} = \dfrac{L \cdot 5}{5}$

$L = 3'$

Overall dimensions: $\boxed{5'6'' \times 3'6''}$