PRACTICE FINAL Form R*   PRE ALGEBRA   Dr. Rapalje

This is a HAND-IN assignment. **Show all work on this test or on separate paper.**   Use calculators wherever possible, so instead of showing work, indicate that you used a calculator.

In 1 – 12 answer in fractional form. (In general, mixed fractions are preferred on this test!)

1. Write $3\dfrac{7}{8}$ as an improper fraction.

2. Write $\dfrac{51}{8}$ as a mixed fraction.

3. Add $\dfrac{7}{15}+\dfrac{5}{12}$

4. Add $6\dfrac{7}{9}+4\dfrac{5}{12}$

5. Multiply $\dfrac{7}{15}\bullet\dfrac{5}{12}$

6. Multiply $2\dfrac{7}{9}\bullet 3\dfrac{3}{5}$

7. Divide $\dfrac{7}{15}\div\dfrac{5}{12}$

8. Divide $2\dfrac{7}{9}\div 5\dfrac{5}{6}$

9. Evaluate $x+y$ where $x=\dfrac{3}{5}$ and $y=\dfrac{9}{20}$.

10. Evaluate $x-y$ where $x=-\dfrac{3}{5}$ and $y=-\dfrac{9}{20}$.

11. Evaluate xy where $x=\dfrac{3}{5}$ and $y=\dfrac{9}{20}$.

12. Evaluate $\dfrac{x}{y}$ where $x=\dfrac{3}{5}$ and $y=\dfrac{9}{20}$.

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In 13 – 14, answer in decimal form.

13. Evaluate $x + y$ where $x = 27.05$ and $y = -8.125$.

14. Evaluate $x - y$ where $x = 27.05$ and $y = -8.125$.

15. Simplify: $12 \div 3 \bullet 4$.

16. Simplify: $12 - 2^2 \div 2$.

17. Simplify: $(12 - 2)^2 \div 2$.

18. Simplify: $12 - 2(8 - 4)^2 \div 2$.

19. Write in decimal notation 9.86×10^5.

20. Write in decimal notation: 8.74×10^{-4}.

21. Write in scientific notation 0.00236.

22. Write in scientific notation: 93,000,000.

23. Expand: $-7x(5x^4 + 8x)$.

24. Expand: $-7x(5x^4 - 8x)$.

In 25 – 30, be sure to give the correct units:

25. Find the perimeter of a rectangle whose width is 27.4 cm and whose length is 56.8 cm.

26. Find the area of a rectangle whose width is 27.4 cm and whose length is 56.8 cm.

27. Find the area of a circle whose radius is 16 feet (use $\pi = 3.14$) .

28. Find the circumference of a circle whose radius is 16 feet (use $\pi = 3.14$) .

29. Find the area of a circle whose diameter is 16 feet (use $\pi = 3.14$) .

30. Find the circumference of a circle whose diameter is 16 feet (use $\pi = 3.14$) .

31. Write an equation for the following: 12 less **than** twice an unknown number is -30.

32. Write an equation for the following: 12 less twice an unknown number is -30.

33. A bicyclist travels $12\frac{3}{8}$ miles the first day, $5\frac{2}{3}$ miles the second day, and $4\frac{2}{5}$ miles the third day. How many total miles did she travel in the three days?

34. In a certain class, $\frac{5}{8}$ of the students are male. If there are 24 students in the class, how many of the students are male? How many are female?

35. In a certain school, 35% of the students are male. If there are 400 students in the school, how many of the students are male? How many are female?

ANSWERS

(Not Guaranteed! 11/29/2008)

1. $\dfrac{31}{8}$;   **2.** $6\dfrac{3}{8}$;   **3.** $\dfrac{53}{60}$;   **4.** $11\dfrac{7}{36}$;   **5.** $\dfrac{7}{36}$;   **6.** 10 ;   **7.** $1\dfrac{3}{25}$;   **8.** $\dfrac{10}{21}$;

9. $1\dfrac{1}{20}$;   **10.** $-\dfrac{3}{20}$;   **11.** $\dfrac{27}{100}$;   **12.** $1\dfrac{1}{3}$;   **13.** 18.925;   **14.** 35.175;   **15.** 16;   **16.** 10;

17. 50;   **18.** -4;   **19.** 986,000;   **20.** 0.000874;   **21.** 2.36×10^{-3} ;   **22.** 9.3×10^{7} ;   **23.** $-35x^{5} - 56x^{2}$;

24. $-35x^{5} + 56x^{2}$;   **25.** 168.4 cm;   **26.** 1556.32 in^{2} ;   **27.** 803.84 in^{2} ;   **28.** 100.48 ft;

29. 200.96 ft^{2} ;   **30.** 50.24 ft ;   **31.** $2x$-12= -30 ;   **32.** 12-$2x$= -30;   **33.** $22\dfrac{53}{120}$;

34. 15 M, 9 F;   **35.** 140 M, 260 F.