Placement Test

1.
$$8 \\ + 3$$

2.
$$10 \\ - 7$$

3.
$$17 \\ + 5$$

4. 18 + 7 =

5. 18 – 9 =

6. 18 + 24 =

7.
$$142 \\ - 59$$

8.
$$4006 \\ - 287$$

9.
$$6{,}247.8 \\ - 368.24$$

10.
$$63 \\ 48 \\ 77.2 \\ 53 \\ + 19$$

11. 9 x 7 =

12. $.12\overline{)195.97}$

13. 200 x 40 =

14. 23.5 x 17.003 =

Look at the number below and then answer the following questions about place value.

$$10{,}759{,}863{,}422$$

15. Which number is in the Ten Thousand column? _____

   Which number is in the One Hundred Million column? _____

   Which column has a zero in it? _____ -

16. $\frac{2}{3} - \frac{2}{6} =$

17. $\frac{4}{7} \div \frac{3}{4} =$

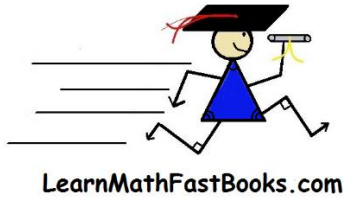18. $3\frac{9}{24} + 2\frac{8}{12} =$

19. $6\frac{1}{3} \times 2\frac{1}{2} =$

20. How much is 20% of 870? _____

21. Write 38% as a decimal number. _____

22. Write 45 cents as a fraction. _____

23. $-8 + (-15) =$

Answer the following questions. Reduce your answers down to the smallest possible denominator.

24. $-\dfrac{6}{8} \div 3 =$

25. $-4\dfrac{3}{8} \times -2\dfrac{1}{7} =$

26. Circle the bigger fraction. $\dfrac{32}{45}$ or $\dfrac{2}{3}$

Solve for x or solve the equation.

27. $x - 12 = 144$

28. $3x = 24$

29. $5^3 + \sqrt{121} =$

30. $x^2 = 64$

31. $(3^2 - 3) + 8 \times 4 \div 2 - 1 =$

32. $2ab + 3ab =$

33. $7a^2 + a^2 - 2a =$

34. $2xy \times 8xyz =$

35. $3a(4a + 9c) =$

Answer the following questions about a line with coordinates (3, 6) and (6, 8).
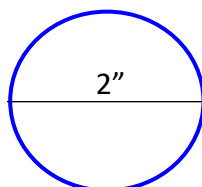
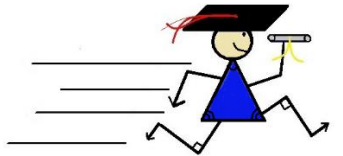36. What is the slope of that line? _____

37. What is the y-intercept of that line? _____

38. Write a linear equation for that line. _____

39. If you were to graph that line, would the line go uphill, downhill, flat or vertical?

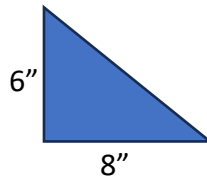40. Find the circumference and the area of the circle below. A = _____ C = _____
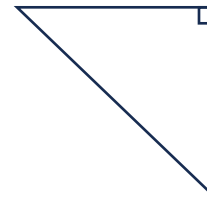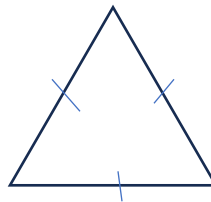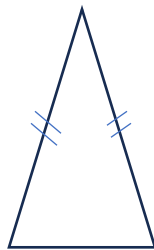
2"

41.   Name the relationship between the two lines. Are they parallel, perpendicular, perimeter or neither.

_____   _____

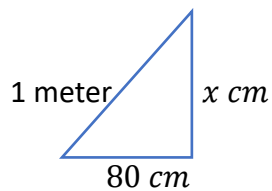42.   What is the length of the hypotenuse in the right triangle below? _____

6"

8"

43.   Name the three special triangles below.

_____   _____   _____

Use the Pythagorean Theorem to solve for x in the two right triangles below.

44.

1 meter $x\ cm$

80 cm

45.

12 km $\sqrt{400}$ km

x