

ST. KATHARINE DREXEL PREP MATH DEPARTMENT
SUMMER MATH PACKET 2017

THIS PACKET IS FOR STUDENTS ENTERING:
8TH GRADE MATH



DIRECTIONS: IN ORDER TO RECEIVE MAXIMUM CREDIT:

- **ALL PROBLEMS MUST BE COMPLETED.**
- **ALL WORK MUST BE SHOWN ON LOOSE LEAF PAPER AND MUST BE COMPLETED WITH A PENCIL ONLY. PAPERS WILL NOT BE GRADED IF THE WORK IS DONE WITH AN INK PEN.**
- **YOU MAY USE MATH WEBSITES SUCH AS KHAN ACADEMY FOR ASSISTANCE.**

DUE DATE: THE SUMMER MATH PACKET MUST BE SUBMITTED THE FIRST WEEK OF SCHOOL FOR A HOMEWORK GRADE. YOUR MATH TEACHER WILL SELECT PROBLEMS FROM THE MATH PACKET TO CREATE YOUR FIRST QUIZ IN YOUR MATH COURSE.

- a. 495 b. 1,454 c. 396 d. 1,287
- ___ 13. $\begin{array}{r} 350 \\ \times 37 \\ \hline \end{array}$
a. 12,950 b. 12,821 c. 3,500 d. 4,305
- ___ 14. $0.93 \times 0.5 =$
a. 4.88 b. 0.465 c. 0.488 d. 4.65
- ___ 15. $4.1 \times 5.6 =$
a. 45.1 b. 22.96 c. 2.3 d. 4.51
- ___ 16. $0.01 \times 0.24 =$
a. 0.0024 b. 0.24 c. 0.024 d. 0.00024
- ___ 17. $0.9 \times 0.062 =$
a. 0.0558 b. 0.558 c. 0.00558 d. 5.58
- ___ 18. $0.047 \times 0.051 =$
a. 0.2397 b. 0.02397 c. 0.002397 d. 0.0002397
- ___ 19. $3.5 \times 100 =$
a. 350 b. 35 c. 3,500 d. 35,000
- ___ 20. $\frac{1}{6} \times \frac{7}{9} =$
a. $\frac{3}{14}$ b. $\frac{7}{54}$ c. $\frac{7}{9}$ d. $1\frac{1}{6}$
- ___ 21. $2\frac{1}{6} \times 3\frac{2}{5} =$
a. $7\frac{11}{30}$ b. $6\frac{1}{10}$ c. $5\frac{23}{30}$ d. $6\frac{1}{15}$

Divide.

- ___ 22. $7 \overline{)539}$
a. 75 b. 81 c. 77 d. 79
- ___ 23. $4 \overline{)67}$
a. 14 b. 16 R3 c. 14 R5 d. 16 R5
- ___ 24. $9 \overline{)444}$
a. 49 R3 b. 52 R5 c. 49 R5 d. 52
- ___ 25. $14 \overline{)68}$
a. 4 R12 b. 7 R14 c. 7 d. 4 R14
- ___ 26. $33 \overline{)236}$
a. 7 R7 b. 10 R7 c. 10 d. 7 R5
- ___ 27. $7.2 \div 9$
a. 8 b. 0.08 c. 80 d. 0.8

- ___ 28. $43.048 \div 16$
 a. 269.05 b. 0.26905 c. 2.6905 d. 26.905
- ___ 29. $2.3 \div 10 =$
 a. 0.023 b. 0.0023 c. 23 d. 0.23
- ___ 30. $0.4 \overline{)1.59}$
 a. 0.03975 b. 3.975 c. 0.3975 d. 39.75
- ___ 31. $4.3 \div 0.86$
 a. 0.5 b. 500 c. 5 d. 50
- ___ 32. $70.38 \div 2.4$
 a. 2.9325 b. 293.25 c. 2932.5 d. 29.325
- ___ 33. $9.207 \div 0.54$
 a. 1.705 b. 1705 c. 17.05 d. 170.5
- ___ 34. $0.0069 \div 0.24$
 a. 0.2875 b. 2.875 c. 0.02875 d. 0.002875
- ___ 35. $0.042 \div 5.6$
 a. 0.00075 b. 0.0075 c. 0.75 d. 0.075
- ___ 36. $\frac{5}{10} \div \frac{3}{8} =$
 a. 4 b. $13\frac{1}{3}$ c. $1\frac{1}{3}$ d. $\frac{3}{16}$
- ___ 37. $2\frac{1}{2} \div 1\frac{5}{8} =$
 a. $1\frac{3}{5}$ b. $\frac{13}{20}$ c. $1\frac{7}{13}$ d. $4\frac{1}{16}$
- ___ 38. What is the value of 3 in 0.3495?
 a. thousandths b. ten-thousandths c. tenths d. hundredths
- ___ 39. Which digit is in the ten-thousandths place value of 907.1845?
 a. 0 b. 7 c. 5 d. 2
- ___ 40. Write three thousand, seven hundred nineteen and eleven hundredths in standard notation.
 a. 30,719.11 b. 3,719.011 c. 3,719.01 d. 3,719.11

Add or subtract.

- ___ 41. $3.04 + 3$
 a. 6.04 b. 307 c. 6 d. 0.04
- ___ 42. $5.34 + 8.7$
 a. 3.36 b. 14.04 c. 14 d. 621
- ___ 43. $9 - 5.478$
 a. 3.52 b. 3522 c. 4.521 d. 3.522
- ___ 44. $4.4 - 2.78$

- a. 1.71 b. 1.62 c. 162 d. 1.6

___ 45. $3.095 + 6.3 + 0.21$
 a. 9.605 b. 9.395 c. 9.185 d. 9.61

___ 46. $\frac{6}{12} + \frac{8}{12} =$
 a. $1\frac{1}{6}$ b. 4 c. 2 d. $7\frac{7}{12}$

___ 47. $\frac{9}{10} - \frac{2}{10} =$
 a. $1\frac{1}{10}$ b. $7\frac{7}{10}$ c. $11\frac{11}{20}$ d. $7\frac{7}{20}$

___ 48. $6\frac{4}{12} + 2\frac{2}{12}$
 a. $2\frac{1}{3}$ b. $8\frac{1}{4}$ c. $6\frac{1}{2}$ d. $8\frac{1}{2}$

___ 49. $8\frac{9}{10} - 1\frac{4}{10}$
 a. 7 b. $6\frac{4}{5}$ c. $7\frac{1}{2}$ d. $87\frac{1}{2}$

Find the missing number.

___ 50. $\frac{10}{15} = \frac{?}{60}$
 a. 55 b. 30 c. 40 d. 50

___ 51. Write $\frac{66}{72}$ in simplest form.
 a. $\frac{33}{36}$ b. $\frac{11}{36}$ c. $\frac{33}{12}$ d. $\frac{11}{12}$

___ 52. Write $\frac{19}{16}$ as a mixed number.
 a. $3\frac{16}{19}$ b. $1\frac{3}{16}$ c. $5\frac{1}{3}$ d. $3\frac{3}{16}$

___ 53. Write $2\frac{1}{11}$ as an improper fraction.
 a. $\frac{22}{11}$ b. $\frac{23}{11}$ c. $\frac{11}{3}$ d. $\frac{3}{11}$

Find each sum or difference. Round to the place value of the less precise measurement.

___ 54. $2 \text{ m} + 4.9 \text{ m}$
 a. 7 m b. 10 m c. 6.9 m d. 2.9 m

___ 55. $7 \text{ cm} - 4.4 \text{ cm}$

- a. 11 cm b. 10 cm c. 3 cm d. 2.6 cm

___ 56. $2.13 \text{ m} + 8.6 \text{ m}$
 a. 6.47 m b. 10.73 m c. 11 m d. 10.7 m

___ 57. $7.79 \text{ km} - 2.1 \text{ km}$
 a. 5.69 km b. 6 km c. 9.9 km d. 5.7 km

Find each product or quotient. Use significant digits.

___ 58. $11 \text{ ft} \times 825 \text{ ft}$
 a. 9,080 ft² b. 9,100 ft² c. 9,000 ft² d. 9,075 ft²

___ 59. $1,370 \text{ m} \div 31.7 \text{ s}$
 a. 43 m/s b. 43.218 m/s c. 43.22 m/s d. 43.2 m/s

___ 60. $0.0505 \text{ m} \times 665 \text{ m}$
 a. 33.6 m² b. 33.58 m² c. 33.50 m² d. 33.582 m²

Complete the equation. Round to the nearest hundredth where necessary.

___ 61. $145 \text{ g} \approx \square \text{ oz}$
 a. 4,118.00 b. 0.20 c. 5.11 d. 368.30

___ 62. $19 \text{ in.} = \square \text{ cm}$
 a. 11.80 b. 48.26 c. 41.80 d. 7.48

___ 63. $5 \text{ L} \approx \square \text{ qt}$
 a. 8.00 b. 5.30 c. 4.72 d. 3.13

___ 64. $10 \text{ mi} \approx \square \text{ km}$
 a. 6.21 b. 9.43 c. 10.60 d. 16.10

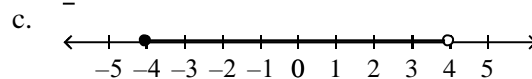
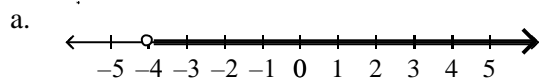
___ 65. $52 \text{ lb} \approx \square \text{ kg}$
 a. 23.64 b. 83.20 c. 114.40 d. 20.47

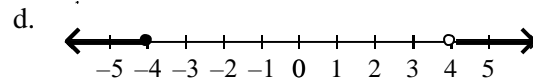
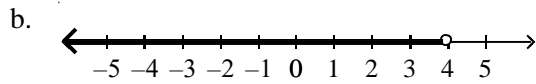
___ 66. The instructions for building a kite tell you to begin by cutting a strip of wood to 45 cm in length, but your ruler only measures inches. How many inches should the piece of wood be? Round to the nearest quarter of an inch.

- a. $17\frac{3}{4}$ in. b. $114\frac{3}{4}$ in. c. $113\frac{3}{4}$ in. d. $16\frac{3}{4}$ in.

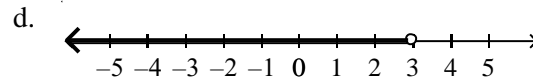
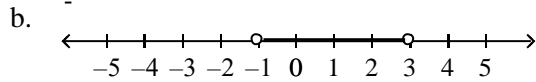
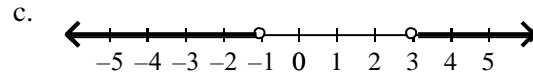
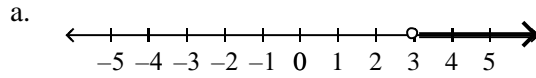
Graph the compound inequality on a number line.

___ 67. $-4 \leq x$ and $x < 4$





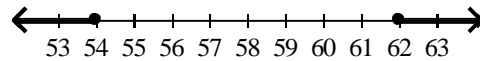
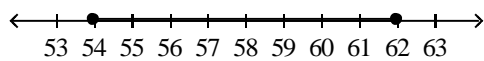
68. $x < -1$ or $x > 3$



69. The holes drilled in a sheet of metal must have a diameter of at least 54 mm and no more than 62 mm. Write the diameter as a compound inequality and graph the solution.

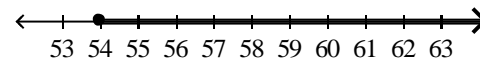
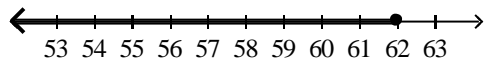
a. $54 \leq d \leq 62$

c. $54 \geq d \geq 62$



b. $d \geq 54$ or $d \leq 62$

d. $d \geq 54$ or $d \geq 62$



70. A new television weighs 80 lb, or 36.36 kg. Write a direct variation for the relationship between pounds and kilograms. (Use y to represent pounds and x to represent kilograms.) Find the number of kilograms in 85 lb.

a. $y = 0.45x$; 0.03 kg

c. $y = 0.45x$; 112.82 kg

b. $y = 2.20x$; 38.64 kg

d. $y = 2.20x$; 187.00 kg

71. Find the sum of the measures of the angles in a pentagon.

a. 360°

b. 540°

c. 620°

d. 900°

72. Find the sum of the measures of the angles in a nonagon (9 sides).

a. 620°

b. 900°

c. 1260°

d. 1620°

Simplify the polynomial.

73. $-3 + 5x + 6x^2 + 4 - 3x - x^2$

a. $5x^2 + 1$

c. $5x^2 + 6x + 4$

b. $5x^2 + 2x + 1$

d. $5x^2 + 2y - 3$

74. $-5y^3 - 7y^2 + 5 - 2y^3 + y + 6$

a. $-7y^3 + 11y^2 - 7y$

c. $-7y^3 - 7y^2 + y + 11$

b. $-3y^3 - 7y^2 + y + 11$

d. $-3y^3 + y^2 - 7y + 11$