

**MAT 0018 PREALGEBRA
FINAL EXAM REVIEW**

NOTE: On the MAT 0018

Section 2.2

19) $-5 + 24 + (-7)$

20) $-8 + (-23) + 17 + (-7)$

Section 2.3

21) $-2 - (-12) + 3 - 7$

22)

Section 2.4

23) $-12(-35)$

24) $-360 \div 6$

Section 2.5

25) Simplify: $(7 - 11)^2 \div (2 - 4)^2$

26) Evaluate $x^2 + 3x - 1$ when

Section 2.6

27) Solve and check your solution:

$y + 7 = 2$

28) Solve and check your solution:

$9 \quad 81$

Section 3.1

29) Simplify the following by combining like terms:

$3x - (5x + 3) + 4$

30) Simplify the following by combining like terms:

$-(5x + 3) - 2(x - 5) + 13$

Section 3.2

31) Solve for x :

$5x + 30 - 4x - 28 = 10$

32) Solve for x :

$12x + 10 = 11(x - 1)$

Section 3.3

33) Solve for x : $5x + 1 = 2(3x - 5)$

34) Solve for x :

$2 - 3(5x + 2) = 2(3 - 5x)$

Section 3.4

35)

Section 4.5

Section 6.2

59) Solve the proportion for the

given variable. $\frac{7.8}{13} = \frac{n}{2.6}$

Section 6.3

60) Find how far apart Albany and Rochester are in Kilometers if their corresponding points on a map are 15 centimeters apart. Use 1 centimeter = 30 Kilometers.

Section 6.4

61) Evaluate $\sqrt{64}$

62)

Section 9.4

73) Convert 84 in. to ft.
(use 1 ft. = 12 in.)

74) Convert 0.42 km to cm

Section 9.6

77) Convert 9 pints to quarts
(use 1 quart = 2 pints)

78) Convert 1.7 liters to kiloliters

Section 9.5

75) Convert 5 pounds to ounces
(use 1 pound = 16 ounces)

76) Convert 4.9 g to mg

CALCULATOR PORTION

Directions: Calculators may be used on the following problems. However, in order to receive any partial credit on the final exam, you should show all work and state how you are getting your answers. On the final exam, incorrect answers without showing work will receive no credit. Always attach the correct units where possible. Reduce all fractions to lowest terms.

Section 1.3

79) buy
a used Buick or a used Ford. The
Buick costs \$3,570 while the
Ford costs \$2,750. How much
less expensive is the Ford?

80) What is the perimeter of a
rectangular lawn that measures
22 meters by 9 meters?

Section 1.4

81) For a full-time student, the
average cost for a semester of
classes at SCF is \$9

Section 1.7

- 85) Perform the indicated operations:

$$12 + (6 \div 3)^2 \cdot 3 - 2$$

- 86) Perform the indicated operations:

$$12 - 8 \div 4 \cdot (5 - 3)^2$$

Section 1.8

- 87) Translate into an algebraic Expression. Let x represent

The quotient of twice a number and thirteen.

Section 2.1

- 88) Simplify: $-|-21|$

- 89) Simplify: $-(-15)$

Section 2.2

- 90) Evaluate the expression if and $y = 0$:

$$3x^2 + 5y$$

Section 2.3

- 91) Evaluate the expression if $x = 7$ and $y = -5$:

$$5xy - 3y$$

Section 2.4

- 92) Translate the phrase then simplify:

Subtract -8 from 19

Section 2.5

- 93) Perform the indicated operations:

$$(3 - 5)^2 + 5 - 3^2$$

- 94) Perform the indicated operations:

$$|(4 - 5)^2 - 12|$$

Section 2.6

- 95) Solve for x : $-6x - 4 = 50$

Section 3.1

- 96) Simplify: $4(x - 7) - 6x$

Section 3.2

- 97) Solve for x : $-4 - 10 = 4x - 5x$

Section 3.3

- 98) Solve for x : $-4 + 3x = 4(x + 2)$

Section 3.4

- 99) Translate into an algebraic equation and solve. Use x to

Twice a number decreased by seven is negative 5

Section 4.2

- 100) Determine whether the following fractions are equivalent:

$$\frac{5}{8} \text{ and } \frac{7}{11}$$

Section 4.3

- 101) Farmer Johnson has 60 chickens in his barn. Two thirds of his chickens lay eggs. How many of his chickens lay eggs?
- 102) Of the 45 students taking the math exam, seven-ninths of them passed. How many students passed the exam?

Section 4.4

- 103) Jan has run $\frac{13}{7}$ miles of a marathon that is $\frac{22}{7}$ miles. How much farther must she run?

Section 4.5

- 104) Simplify the following by combining like terms:

$$\frac{2x}{3} + \frac{4y}{3} + \frac{x}{3} - \frac{2y}{3}$$

- 105) Simplify the following by combining like terms:

$$\left(\frac{2x}{5} + \frac{3}{8}\right) - \left(\frac{x}{5} - \frac{1}{8}\right)$$

Section 4.6

- 106) Simplify. $\left(\frac{1}{3}\right)^2 \div \left(\frac{2}{5} - \frac{1}{4}\right)$

Section 4.7

- 107) Subtract and write solution as a mixed number:

—

Section 4.8

- 108) Solve for x : — — —

Section 5.1

- 109) Write 0.875 as a fraction in lowest terms.

Section 5.2

- 110) Simplify the following by combining like terms:

$$v \quad y \quad x \quad y$$

Section 5.3

- 111) Find the circumference of the following circle.
- a) Give the exact answer (in terms of π).
- b)

Section 5.6

115) Solve for x : $-5x = 12.245$

Section 5.7

116)

Section 7.5

125) Larry earns 25% commission on his sales per month. If Larry sells \$6,500 worth of merchandise in one month, how much does he earn?

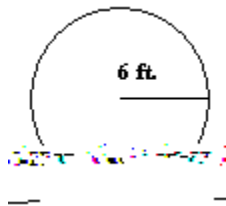
126) Maryland has a sales tax of 6%. Delaware has no sales tax at all. Would it be cheaper to buy a sweater for \$79 in Maryland or \$84 in Delaware?

Section 7.6

127) Robert invests \$3,850 into an account that pays $12\frac{1}{2}\%$ simple interest. How much interest will he earn after 2 years?

Section 9.2

128) Find the exact circumference of the circle (in terms of π).



Solutions:

- 1) Forty-two million, ninety-seven thousand, eight hundred twenty-three
- 2) 980,617
- 3) 28,117
- 4) 67,459
- 5) 44,000
- 6) 231,000,000
- 7) 161,164

- 8) 1,554 square feet
- 9) 406

- 10) 92 R 61
- 11) 59
- 12) 39
- 13) 3
- 14) 62

