Other Chapters Final Exam Practice
Winter 2010 V02

Name_____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Perform the indicated operation or operations.

1) $(7 - 10)^2(5 - 7)^3$

2) $(7 - 10)^2(3 - 5)^3$

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

List all the elements of B that are elements of the given set.

3) $B = \{18, \sqrt{6}, -5, 0, \frac{0}{8}, \sqrt{25}\}$ Integers

A) $18, -5, 0, \frac{0}{8}, \sqrt{25}$ B) $18, -5, 0$ C) $18, 0, \sqrt{25}$ D) $18, 0$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Provide an appropriate response.

4) List all the rational numbers in this set.

$\left\{13, \sqrt{6}, -7, 0, \pi, \sqrt{9}, \frac{22}{7}, 0.41\right\}$

5) List all the rational numbers in this set.

$\left\{14, \sqrt{6}, -6, 0, \pi, \sqrt{25}, \frac{22}{7}, 0.34\right\}$

Perform the indicated operation or operations.

6) $\left(-\frac{1}{3}\right) \div (-6)$

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

List all the elements of B that are elements of the given set.

7) $B = \{15, \sqrt{8}, -5, 0, \frac{0}{16}, \sqrt{16}\}$ Natural numbers

A) $15, \sqrt{16}$ B) 15, 0 C) $15, 0, \sqrt{16}$ D) $15, 0, \frac{0}{1}$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Perform the indicated operation or operations.

8) $\left(10\frac{1}{2}\right)\left(-2\frac{1}{3}\right)$

9) $\left(2\frac{1}{3}\right)\left(-1\frac{3}{4}\right)$

10) $(-5)(-4) \div (8 - 12)$

11) $(-6)(-4) \div (8 - 12)$

Provide an appropriate response.

12) Insert either < or > in the area between the pair of numbers to make a true statement: -90 ____ -80.

13) Insert either < or > in the area between the pair of numbers to make a true statement: -27 ____ -41.

14) Find the absolute value: $|-10.1|$.

15) Find the absolute value: $|-15.8|$.

Determine whether the given number is a solution of the equation.

16) $\frac{1}{3}(x + 2) = \frac{1}{18}x + \frac{4}{3}$; -10

17) $\frac{1}{4}(x + 1) = \frac{1}{24}x + \frac{3}{4}$; -9

Solve the problem.

18) Sara invested $8100 in two stocks paying 9% and 8% annual interest, respectively. At the end of the year, the total interest from these investments was $687. How much was invested at each rate?

19) Sara invested $8800 in two stocks paying 10% and 7% annual interest, respectively. At the end of the year, the total interest from these investments was $700. How much was invested at each rate?

Solve.

20) How much pure acid should be mixed with 2 gallons of a 50% acid solution in order to get an 80% acid solution?

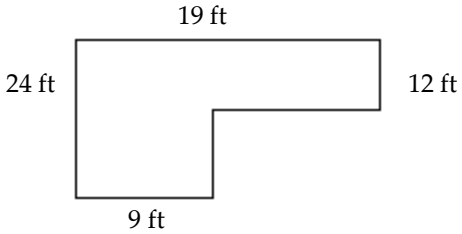
21) How much pure acid should be mixed with 9 gallons of a 50% acid solution in order to get an 80% acid solution?

22) Sue took her collection of nickels and dimes to deposit in the bank. She has five fewer nickels than dimes. Her total deposit was $34.10. How many dimes did she deposit?

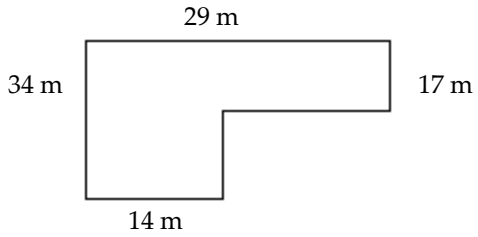
23) Sue took her collection of nickels and dimes to deposit in the bank. She has five fewer nickels than dimes. Her total deposit was $41.90. How many dimes did she deposit?

Find the area of the figure.

24)

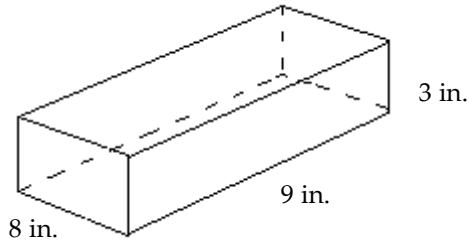


25)

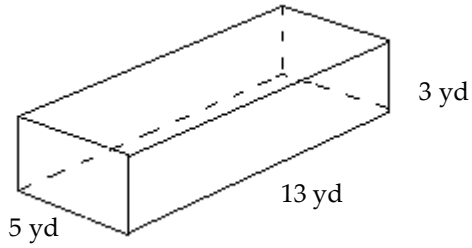


Find the volume of the figure. Where applicable, express answers in terms of π.

26)



27)



Solve the problem.

28) What will it cost to cover a rectangular floor measuring 90 feet by 70 feet with square tiles that measure 3 feet on each side if a box of 10 tiles costs $12 per box?

29) What will it cost to cover a rectangular floor measuring 40 feet by 80 feet with square tiles that measure 2 feet on each side if a box of 10 tiles costs $11 per box?

30) How many degrees are there in an angle that measures 38° more than the measure of its compliment?

Find the measure of the indicated angle.

31) Find the measure of the complement of 39°.

32) Find the measure of the complement of 43°.

33) Find the measure of the supplement of 49°.

34) Find the measure of the supplement of 31°.

35) Find the measure of the supplement of 138°.

36) Find the measure of the supplement of 123°.

37) The angle's measure is 50° more than that of its complement.

38) The angle's measure is 40° more than that of its complement.

39) The angle's measure is 40° more than that of its supplement.

40) The angle's measure is 60° more than that of its supplement.

41) The angle's measure is 20° more than triple that of its supplement.

42) The angle's measure is 80° more than triple that of its supplement.

43) The angle's measure is 40° more than triple that of its supplement.

1) –72
2) –72
3) A
4) 13, –7, 0, $\sqrt{9}$, $\frac{22}{7}$, 0.41
5) 14, –6, 0, $\sqrt{25}$, $\frac{22}{7}$, 0.34
6) $\frac{1}{18}$
7) A
8) $-\frac{49}{2}$
9) $-\frac{49}{12}$
10) –5
11) –6
12) <
13) >
14) 10.1
15) 15.8
16) not a solution
17) not a solution
18) \$3900 at 9% and \$4200 at 8%
19) \$2800 at 10% and \$6000 at 7%
20) 3 gal
21) 13.5 gal
22) 229 dimes
23) 281 dimes
24) 336 ft^2
25) 731 m^2
26) 216 $in.^3$
27) 195 yd^3
28) \$840
29) \$880
30) 64°
31) 51°
32) 47°
33) 131°
34) 149°
35) 42°
36) 57°
37) 70°
38) 65°
39) 110°
40) 120°
41) 140°
42) 155°
43) 145°