Chapter 4 TECM 119 Practice Test

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

Solve the equation.

1) $4x + 18 = 3x + 1$ 1) _____

A) 17 B) -17 C) 19 D) -19

2) $4(3x - 10) = 20$ 2) _____

A) 6 B) 3 C) 4 D) 5

3) $6x - (4x - 1) = 2$ 3) _____

A) $\frac{1}{10}$ B) $\frac{1}{2}$ C) $-\frac{1}{10}$ D) $-\frac{1}{2}$

Set up the appropriate equation and then solve.

4) Seven times the difference of 7 and a number gives 70. 4) _____

A) 21 B) 3 C) -3 D) -21

5) Twenty-four less than three times a number is equal to the product of five and the number. 5) _____

A) 3 B) 12 C) -3 D) -12

Identify the equation as an identity or contradiction.

6) $7(x + 7) = 7x + 49$ 6) _____

A) Identity B) Contradiction

Solve the problem.

7) The cost of a cab ride in dollars is given by $C(x) = 1.70 + 0.60n$, where n is the number of miles. What are the charges for a ride of 28 miles? 7) _____

A) $18.50 B) $28.56 C) $64.40 D) $48.20

Solve for the indicated literal number.

8) $V = \frac{1}{3}Bh$ for h 8) _____

A) $h = \frac{3V}{B}$ B) $h = \frac{3B}{V}$ C) $h = \frac{B}{3V}$ D) $h = \frac{V}{3B}$

9) $\frac{a}{x} = b$ for x 9) _____

A) $b + a$ B) $\frac{a}{b}$ C) ab D) $\frac{b}{a}$

10) $\frac{1}{6}n - (6 - a) = 10a$ for n 10) _____

A) $54a + 36$ B) $1.5a + 1$ C) $66a - 36$ D) $66a + 36$

Solve the inequality.

11) $x - 1 < -13$ 11) _____

A) $x \leq -12$ B) $x < -12$ C) $x > -12$ D) $x \geq -12$

12) $-5x \geq 20$ 12) _____

A) $x \leq -4$ B) $x \geq 4$ C) $x \geq -4$ D) $x \leq 4$

Solve the problem.

13) A tree 13 feet high grows at the rate of 3 feet each year. How many years will it take for the tree to grow to a height of 28 feet? 13) _____

A) 22 year(s) B) 10 years C) 5 years D) 12 years

14) Junior high classes of 20 students each met in the cafeteria to take achievement tests. If exactly 8 students sat at each table and 30 tables were used, how many classes took the tests? 14) _____

A) 15 classes B) 14 classes C) 25 classes D) 12 classes

15) Two pieces of equipment were purchased for a total of $9000. If one piece cost $370 more than the other, find the price of the less expensive piece of equipment. 15) _____

A) $4700 B) $4300 C) $4685 D) $4315

Express the ratio in simplest form.

16) 21 V to 6 V 16) _____

A) $\frac{2}{7}$ B) $\frac{7}{2}$ C) $\frac{8}{3}$ D) $\frac{21}{2}$

Solve the proportion for x.

17) $\frac{x}{26} = \frac{8}{13}$ 17) _____

A) 16 B) 8 C) 32 D) 13

Use a proportion to solve the problem.

18) On a map, 1.00 cm represents 2.00 km. If a bike trail is 7.40 km, what would be the length of the trail on the map? 18) _____

A) 3.70 cm B) 5.70 cm C) 5.40 cm D) 0.40 cm

Express the given statement as an equation.

19) y varies directly as x. 19) _____

A) $y = \frac{k}{x}$ B) $x = y$ C) $y = x + k$ D) $y = kx$

Find the required value by setting up the general equation and then evaluating.

20) Find y when x = 20 if y varies directly as x, and y = 27 when x = 12. 20) _____

A) 20 B) 5 C) 45 D) $\frac{80}{9}$

Chapter 4 TECM 119 Practice Test

Answer Key

1) B
2) D
3) B
4) C
5) D
6) A
7) A
8) A
9) B
10) A
11) B
12) A
13) C
14) D
15) D
16) B
17) A
18) A
19) D
20) C