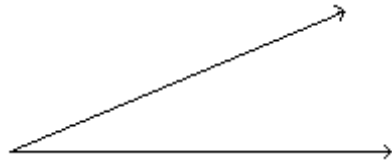


Chapter 8 TECM 118 Practice Test

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

Tell whether the angle is acute, right, obtuse, or straight.

1)



A) Obtuse

B) Straight

C) Right

D) Acute

1) _____

2)



A) Obtuse

B) Straight

C) Acute

D) Right

2) _____

3)



A) Acute

B) Right

C) Obtuse

D) Straight

3) _____

Find the requested angle.

4) Complement of 37°

A) 143°

B) 53°

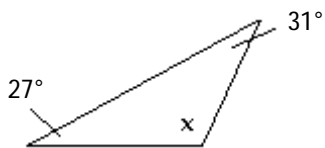
C) 323°

D) 74°

4) _____

Find the missing angle measure.

5)



A) 153°

B) 58°

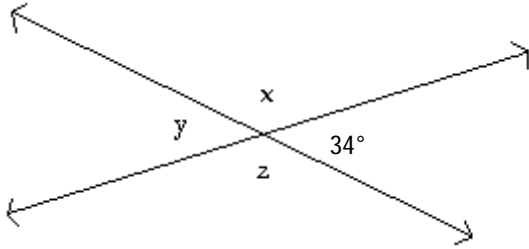
C) 122°

D) 149°

5) _____

Find the measure of the unknown angles. Figures are not drawn to scale.

6)

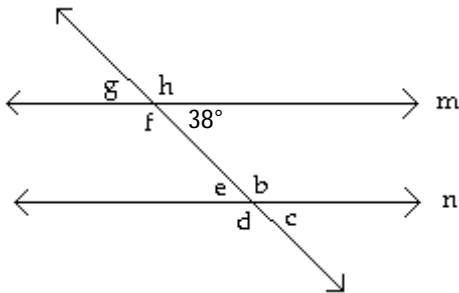


6) _____

Find the measure of $\angle x$.

- A) 56° B) 156° C) 146° D) 124°

7) $m \parallel n$



7) _____

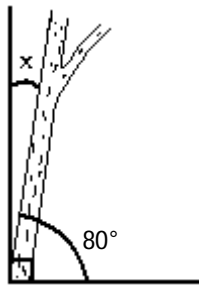
Find the measure of $\angle d$.

- A) 128° B) 52° C) 152° D) 142°

Solve.

8) An arboretum has planted a variety of rare species of trees as part of a conservation effort. One recently planted tree has an angle of inclination of 80° . Conservationists want to correct the lean so that the tree continues to grow straight. Find the angle x , at which the tree deviates from the normal upright position.

8) _____



- A) 12° B) 100° C) 10° D) 20°

Find the missing angle in the triangle.

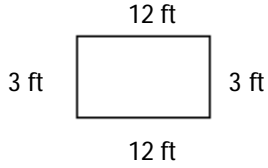
9) Two angles are 38° and 14° .

- A) 52° B) 308° C) 38° D) 128°

9) _____

Find the perimeter of the rectangle or square.

10)

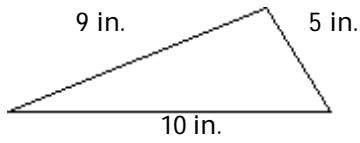


- A) 18 ft B) 30 ft C) 15 ft D) 12 ft

10) _____

Find the perimeter or circumference.

11)

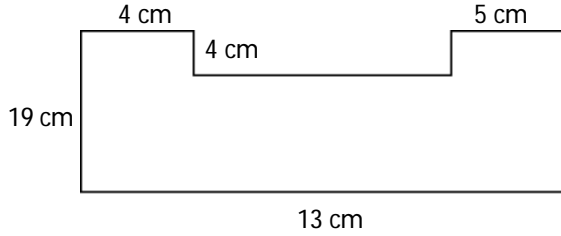


- A) 24 in. B) 23 in. C) 19 in. D) 25 in.

11) _____

Find the perimeter of the shape made up of rectangles and squares.

12)



- A) 81 cm B) 72 cm C) 53 cm D) 68 cm

12) _____

Find the circumference of the circle. Use 3.14 for π .

13)

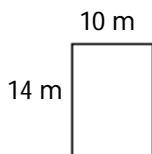


- A) 6079.04 mi B) 69.08 mi C) 276.32 mi D) 138.16 mi

13) _____

Find area of figure. Round to the nearest hundredth if necessary.

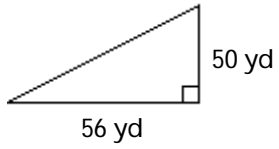
14)



- A) 48 m² B) 280 m² C) 140 m² D) 24 m²

14) _____

15)



A) 1250 yd^2

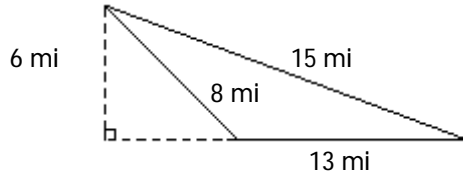
B) 2800 yd^2

C) 700 yd^2

D) 1400 yd^2

15) _____

16)



A) 24 mi^2

B) 78 mi^2

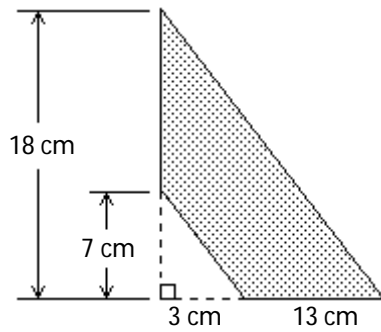
C) 45 mi^2

D) 39 mi^2

16) _____

Find the area of the shaded region.

17)



A) 106.5 cm^2

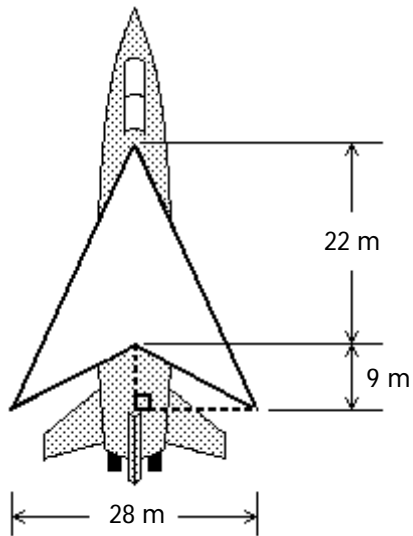
B) 133.5 cm^2

C) 144 cm^2

D) 267 cm^2

17) _____

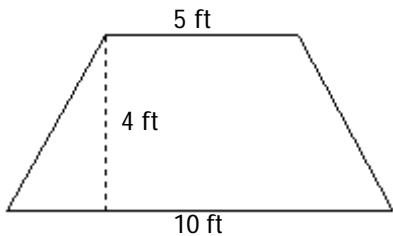
18) The top surface of the wings of a test plane must be coated with a special lacquer that costs \$90 per square meter. Find the cost to coat the white wing surface of the plane. 18) _____



- A) \$27,720.00 B) \$39,060.00 C) \$13,860.00 D) \$172,480.00

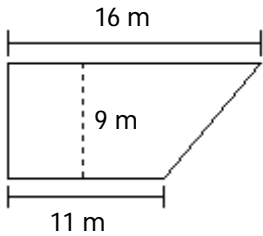
Find area of figure. Round to the nearest hundredth if necessary.

19) _____



- A) 25 ft² B) 19 ft² C) 60 ft² D) 30 ft²

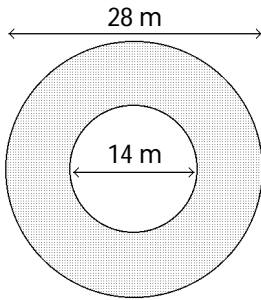
20) _____



- A) 121.5 m² B) 792 m² C) 243 m² D) 167 m²

Find the shaded area.

21)



21) _____

(Use 3.14 for π .)

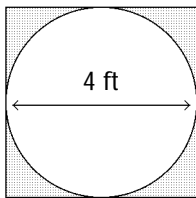
A) 615.44 m²

B) 49 m²

C) 153.86 m²

D) 461.58 m²

22)



22) _____

(Use 3.14 for π .)

A) 12.56 ft²

B) 3.44 ft²

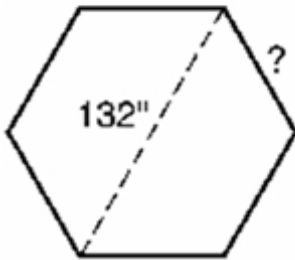
C) 4 ft²

D) 16 ft²

Find the missing side.

23) Find the side of this regular hexagon.

23) _____



Regular Hexagon

Let $AB = f$ = distance across flats
 Let $DE = d$ = distance across corners (diagonal)
 s = side



$$f \approx 0.866d \quad f \approx 1.732s$$

$$d = 2s \quad d \approx 1.155f$$

$$s = 0.5d \quad s \approx 0.577f$$

$$\text{Area} \approx 0.866f^2$$

$$\approx 0.650d^2$$

$$\approx 2.598s^2$$

A) 52 in.

B) 70 in.

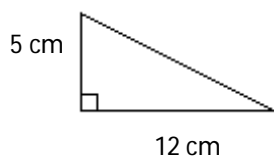
C) 35 in.

D) 66 in.

Find the unknown side of the right triangle. Use a calculator or square root table when necessary and round to the nearest thousandth.

24)

24) _____



A) 8.5 cm

B) 169 cm

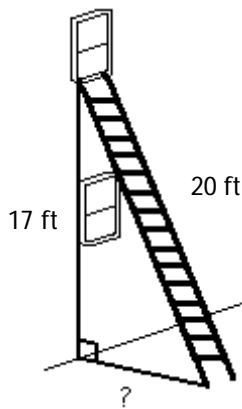
C) 84.5 cm

D) 13 cm

Solve. Round to the nearest tenth.

25) A 20-ft-tall ladder is placed so that it reaches 17 ft up on the wall of a house. How far is the base of the ladder from the wall of the house?

25) _____



A) 10.5 ft

B) 26.2 ft

C) 689 ft

D) 111 ft

Chapter 8 TECM 118 Practice Test

Answer Key

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