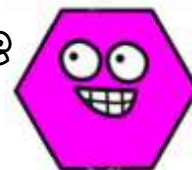




10.2 Circles and Regular Polygons Practice

Directions: Carefully read the directions for each problem.
Once you have identified an answer, please circle in your answer.



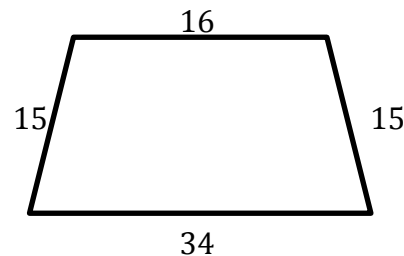
| | |
|--|--|
| <p>1) Find the diameter of a circle in which $A = 169\pi \text{ in}^2$.</p> <p>a) $d = 13\pi \text{ in}$ b) $d = 13 \text{ in}$ c) $d = 26\pi \text{ in}$ d) $d = 26 \text{ in}$</p> | <p>2) Find the circumference of a circle in which $A = 64\pi \text{ ft}^2$.</p> <p>a) $C = 8\pi \text{ ft.}$ b) $C = 16\pi \text{ ft.}$ c) $C = 24\pi \text{ ft.}$ d) $C = 32\pi \text{ ft.}$</p> |
| <p>3) Find the radius of $\odot M$ if the area is $100\pi x^2$ square meters .</p> <p>a) $(100x + 25) \text{ m}$ b) $(50x + 12.5) \text{ m}$ c) $(10x + 5) \text{ m}$ d) $(10x + 5)\pi \text{ m}$</p> | <p>4) Find the area of an equilateral triangle that has a side length of 6 cm.</p> <p>a) $9\sqrt{3} \text{ cm}^2$ b) 18 cm^2 c) 9 cm^2 d) $18\sqrt{3} \text{ cm}^2$</p> |
| <p>5) Find the area of a regular hexagon with apothem of length $7\sqrt{3} \text{ in.}$ rounded to the nearest tenth.</p> <p>a) $A \approx 169.7 \text{ in}^2$ b) $A \approx 509.2 \text{ in}^2$ c) $A \approx 678.9 \text{ in}^2$ d) $A \approx 1018.4 \text{ in}^2$</p> | <p>6) Find the area of a regular octagon with side lengths of 6 ft. rounded to the nearest tenth.</p> <p>a) $A \approx 72.0 \text{ ft}^2$ b) $A \approx 99.1 \text{ ft}^2$ c) $A \approx 124.7 \text{ ft}^2$ d) $A \approx 173.8 \text{ ft}^2$</p> |
| <p>7) Find the area of a regular pentagon with side lengths 15 cm. rounded to the nearest tenth.</p> <p>a) $A \approx 154.6 \text{ cm}^2$ b) $A \approx 309.7 \text{ cm}^2$ c) $A \approx 387.1 \text{ cm}^2$ d) $A \approx 774.2 \text{ cm}^2$</p> | <p>8) Find the height of the rectangle, in which $A=200x^2 \text{ m}^2$ and $b = 16x \text{ m}$.</p> <p>a) $h = 25x \text{ m}$ b) $h = 16x \text{ m}$ c) $h = 12.5x \text{ m}$ d) $h = 8x \text{ m}$</p> |

9) Find the perimeter of a square in which
 $A = 121x^2 \text{ in}^2$.

- a) $P = 22x^2 \text{ in}$
- b) $P = 22x \text{ in}$
- c) $P = 44x^2 \text{ in}$
- d) $P = 44x \text{ in}$

10) Find the area of the trapezoid.

- a) $A = 100 u^2$
- b) $A = 300 u^2$
- c) $A = 200 u^2$
- d) $A = 375 u^2$

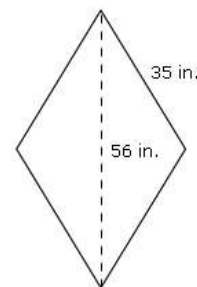


11) Find the base of a triangle in which $h = 5 \text{ ft}$
 and $A = (5x + 20) \text{ ft}^2$.

- a) $b = (x + 4) \text{ ft}$
- b) $b = (x + 6) \text{ ft}$
- c) $b = (2x + 8) \text{ ft}$
- d) $b = (5x + 25) \text{ ft}$

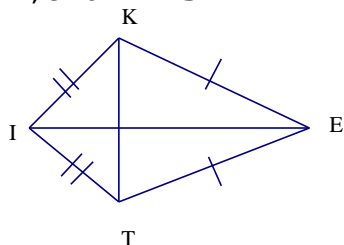
12) Find the area of the rhombus.

- a) $A = 980 \text{ in}^2$
- b) $A = 1,176 \text{ in}^2$
- c) $A = 1,960 \text{ in}^2$
- d) $A = 2,353 \text{ in}^2$



13) Find the area of a kite in which $\angle KIT$ is a right angle,
 $KT = 32 \text{ in}$, and $KE = 34 \text{ in}$.

- a) $A = 272 \text{ in}^2$
- b) $A = 736 \text{ in}^2$
- c) $A = 1088 \text{ in}^2$
- d) $A = 1472 \text{ in}^2$

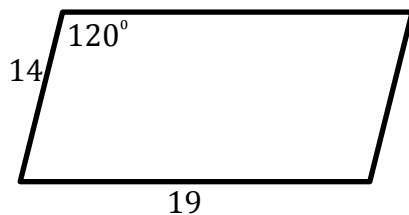


14) Find the area of a square in which the
 diagonal is 8 cm .

- a) $A = 4\sqrt{2} \text{ cm}^2$
- b) $A = 16 \text{ cm}^2$
- c) $A = 32 \text{ cm}^2$
- d) $A = 64 \text{ cm}^2$

15) Find the area of the parallelogram.

- a) 133
- b) 266
- c) $66.5\sqrt{3}$
- d) $133\sqrt{3}$



16) Find the area of an isosceles triangle with
 side lengths of 34 in , 34 in , and 60 in .

- a) 480 in^2
- b) 240 in^2
- c) 960 in^2
- d) 510 in^2

