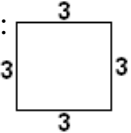
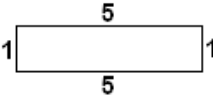


Answers to Winter 2009 Tests – MAT 1015

Test 1

1. 360 2. 180 3. 180 4. D 5. Acute 6. Right 7. Perpendicular 8. Isosceles 9. 1.58×10^{-9}
10. 132×10^6 11. 29 microliters 12. 52,670 13. 591 14. Answer varies 15. Answer varies
16. Varies: $\triangle ABD$, $\triangle CDF$, $\triangle CBE$, or $\triangle AEF$ 17. 90° 18. 18° 19. 108° 20. a) Acute b) Equilateral
21. a) Obtuse b) Isosceles 22. Example:
- | | |
|---|--|
|  |  |
| $A = 9$ $P = 12$ | $A = 5$ $P = 12$ |
23. 75 cm^2 24. $60,000 \text{ m}^2$
25. 1587.67 cm^2 26. a) 1080° b) 135° 27. $\approx 19 \text{ m}$ 28. One 12" pizza 29. 72 ft^2 30. a) 495 in^2
b) 1140 in^2 c) 645 in^2

Test 2

1. Size, Shape 2. Parallel 3. 180 4. 90 5. 52° 6. 142° 7. Answer varies 8. a) 104° b) 76°
c) 104° d) 104° e) 76° f) 35° g) 69° h) 69° i) 145° 9. Alternate exterior 10. Alternate interior
11. Supplementary 12. Vertical 13. 60° 14. \overline{AC} 15. \overline{AB} 16. a) 18 b) 36° c) 36° d) 144°
e) 108° f) 144° g) 36° 17. No 18. Yes 19. No 20. a) 12 b) 15° c) 75° 21. a) 72.277
b) 4087.18 cm^2 c) 1764 cm^2 22. a) 636 in. b) $518,976 \text{ in}^3$ c) $6,616,944 \text{ in}^3$ d) 28,644.8 gal.
23. a) AAS b) SAS c) None

Test 3

1. Congruent 2. Right 3. a) $\frac{\text{adjacent}}{\text{opposite}}$ b) $\frac{\text{hypotenuse}}{\text{adjacent}}$ c) $\frac{\text{hypotenuse}}{\text{opposite}}$ 4. 11 ft. 5. a) 6.12
b) 8.28 c) $\angle CDE$ d) $\angle DEC$ e) $\angle DCE$ 6. $\frac{6}{7}$ 7. 12 8. Omit 9. 5.6238 10. 8.5282
11. a) 42.79° b) 47.21° 12. 0.5432 13. 0.9781 14. 28.6363 15. 4.1627 16. 2.9238
17. 3.31 18. 1.1705 19. 73.1595 20. a) 8 b) $\frac{4}{5}$ c) $\frac{3}{5}$ d) $\frac{4}{3}$ e) $\frac{3}{4}$ f) $\frac{5}{4}$ g) $\frac{5}{3}$
h) 53.13° i) 36.87° 21. 23.4° 22. 81.42° 23. 168.4136... 24. $52^\circ 38' 53''$
25. $57^\circ 30' 12''$ 26. $147^\circ 30' 12''$ 27. 9.659 feet 28. 219.317 miles

Test 4

1. $\frac{61\pi}{36}$ 2. $\frac{11\pi}{18}$ 3. 105° 4. 223.45° 5. 0.9063 6. 4.4454 7. 1.5890 8. 2.1445 9. -1.0355
10. a) 2.125 rad. b) 121.75° 11. 10.014 ft 12. 47° 13. 78° 14. 296° 15. 187°
16. 23.6° or 156.4° 17. 27.5° or 152.5° 18. 0.6° or 179.4° 19. 84.6° or 95.4° 20. 215.8 miles
21. 70.32 ft 22. 1991.42 ft 23. 5.7025 24. 51.1° or 128.9°