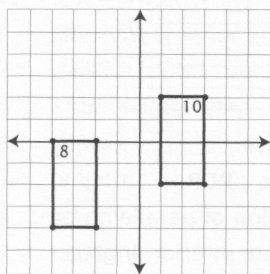


19. $\angle UQS \cong \angle TQP$: vertical angles
 20. $\triangle QSU \cong \triangle QPT$: AAS

Systematic Review 29E

1. $\frac{8}{12.8} \times \frac{10}{10} = \frac{80}{128} = \frac{5}{8}$
2. $\frac{10}{12.8} \times \frac{10}{10} = \frac{100}{128} = \frac{25}{32}$
3. $\frac{8}{10} = \frac{4}{5}$
4. $\frac{10}{12.8} \times \frac{10}{10} = \frac{100}{128} = \frac{25}{32}$
5. $\frac{8}{12.8} \times \frac{10}{10} = \frac{80}{128} = \frac{5}{8}$
6. $\frac{10}{8} = \frac{5}{4}$

7-10.



10. Appears the same as the original, because the figure is symmetrical around the X axis.
11. equiangular triangle, equilateral
12. $\text{long leg} \div \sqrt{3} = \frac{5\sqrt{6}}{\sqrt{3}} = \frac{5\sqrt{2}}{1} = 5\sqrt{2}$
13. $\text{short leg} \times 2 = (5\sqrt{2})(2) = 10\sqrt{2}$
14. diameter
15. $40^\circ + 85^\circ = 125^\circ$
16. $180^\circ - 125^\circ = 55^\circ$
17. 180°
18. $180^\circ - 72^\circ = 108^\circ$
(supplementary angles)

19. $2B + 3B = 180^\circ$
(supplementary angles)
 $5B = 180^\circ$
 $B = 36^\circ$
 $3B = X$ (alternate interior angles)
 $X = 3(36^\circ) = 108^\circ$
 $108^\circ = X$
20. $6B + 14B = 180^\circ$
(supplementary angles)
 $20B = 180^\circ$
 $B = 9^\circ$
 $6B = X$ (alternate exterior angles)
 $X = 6(9^\circ) = 54^\circ$

Lesson Practice 30A

1. $\frac{6}{10} = \frac{3}{5}$
2. $\frac{8}{10} = \frac{4}{5}$
3. $\frac{6}{8} = \frac{3}{4}$
4. $\frac{5}{3}$
5. $\frac{5}{4}$
6. $\frac{4}{3}$
7. $\frac{24}{26} = \frac{12}{13}$
8. $\frac{10}{26} = \frac{5}{13}$
9. $\frac{24}{10} = \frac{12}{5}$
10. $\frac{13}{12}$
11. $\frac{13}{5}$
12. $\frac{5}{12}$
13. $\frac{4}{8.5} \times \frac{10}{10} = \frac{40}{85} = \frac{8}{17}$
14. $\frac{7.5}{8.5} \times \frac{10}{10} = \frac{75}{85} = \frac{15}{17}$
15. $\frac{4}{7.5} \times \frac{10}{10} = \frac{40}{75} = \frac{8}{15}$

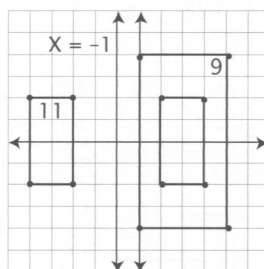
16. $\frac{17}{8}$
17. $\frac{17}{15}$
18. $\frac{15}{8}$
19. 1
20. Pythagorean Theorem

Lesson Practice 30B

1. $\frac{3}{5}$
2. $\frac{4}{5}$
3. $\frac{3}{4}$
4. $\frac{5}{3}$
5. $\frac{5}{4}$
6. $\frac{4}{3}$
7. $\frac{15}{17}$
8. $\frac{8}{17}$
9. $\frac{15}{8}$
10. $\frac{17}{15}$
11. $\frac{17}{8}$
12. $\frac{8}{15}$
13. $\frac{4}{8} = \frac{1}{2}$
14. $\frac{5.7}{8} \times \frac{10}{10} = \frac{57}{80}$
15. $\frac{4}{5.7} \times \frac{10}{10} = \frac{40}{57}$
16. $\frac{2}{1}$
17. $\frac{80}{57}$
18. $\frac{57}{40}$
19. $\cos^2 \theta$
20. trig ratios

Systematic Review 30C

1. $\frac{12}{13.4} \times \frac{10}{10} = \frac{120}{134} = \frac{60}{67}$
2. $\frac{6}{13.4} \times \frac{10}{10} = \frac{60}{134} = \frac{30}{67}$
3. $\frac{12}{6} = \frac{2}{1}$
4. $\frac{67}{60}$
5. $\frac{67}{30}$
6. $\frac{1}{2}$
7. $\sin^2 \theta + \cos^2 \theta = 1$
- 8-11.



12. $\angle LPG \cong \angle RGP$:
definition of parallelogram;
alternate interior angles
13. $\angle LGP \cong \angle RPG$:
definition of parallelogram;
alternate interior angles
14. $\overline{PG} \cong \overline{PG}$: reflexive property
15. $\triangle PLG \cong \triangle GRP$: ASA
16. decagon
17. congruent
18. theorems
19. arc
20. $\sqrt{2}$

Systematic Review 30D

1. $\frac{13.6}{15} \times \frac{10}{10} = \frac{136}{150} = \frac{68}{75}$
2. $\frac{6.4}{15} \times \frac{10}{10} = \frac{64}{150} = \frac{32}{75}$
3. $\frac{13.6}{6.4} \times \frac{10}{10} = \frac{136}{64} = \frac{17}{8}$

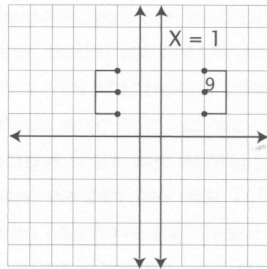
$$4. \frac{15}{13.6} \times \frac{10}{10} = \frac{150}{136} = \frac{75}{68}$$

$$5. \frac{75}{32}$$

$$6. \frac{8}{17}$$

$$7. 1$$

8-9.



10. $\overline{AE} \parallel \overline{CD}$: given
11. $\angle BEA \cong \angle BCD$:
alternate interior angles
12. $\angle ABE \cong \angle DBC$: vertical angles
13. $\triangle ABE \sim \triangle DBC$: AA
14. chord
15. tangent
16. $\sqrt{3}$
17. 180°
18. 360°
19. $V = \frac{1}{3}Bh = \frac{1}{3}(60 \times 60)(50) =$
 $60,000 \text{ mm}^3$
20. $SA = 4 \frac{1}{2}(60)(70) + (60)(60) =$
 $8,400 + 3,600 = 12,000 \text{ mm}^2$

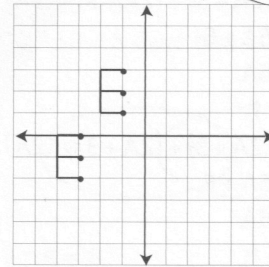
Systematic Review 30E

1. $\frac{24}{25}$
2. $\frac{7}{25}$
3. $\frac{24}{7}$
4. $\frac{25}{24}$
5. $\frac{25}{7}$

$$6. \frac{7}{24}$$

$$7. \sin \theta$$

8-9.



10. octagon
11. perpendicular
12. $r = \frac{1}{2}d = \frac{1}{2}(20) = 10 \text{ ft}$
 $A = \pi r^2 \approx (3.14)(10)^2 = 314 \text{ ft}^2$
13. express all measurements
in the same unit:
 $.75 \text{ ft} \times 12 = 9 \text{ in}$
 $1.5 \text{ ft} \times 12 = 18 \text{ in}$
 $V = Bh = \frac{1}{2}(9)(5) \times 18 = 405 \text{ in}^3$
14. $SA = \text{area of 2 ends plus area of}$
 $2 \text{ sides plus area of bottom} =$
 $2 \frac{1}{2}(9)(5) + 2((18)(7)) + (9)(18) =$
 $45 + 252 + 162 = 459 \text{ in}^2$
15. $D = 2\pi r \approx 2(3.14)(4) = 25.12 \text{ in}$
16. arc is $\frac{90^\circ}{360^\circ} = \frac{1}{4}$ of circle
 $\frac{1}{4} \times 25.12 = 6.28 \text{ in}$
17. $\frac{(X+3)+(X+7)}{2} = 14$

$$\frac{2X+10}{2} = 14$$

$$2X+10 = 2(14)$$

$$2X+10 = 28$$

$$2X = 18$$

$$X = 9 \text{ in}$$

18. $A = \text{average base} \times \text{height}$
 $= 14(X+2)$

$14(X+2) \Rightarrow 14((9)+2) = 14(11) = 154 \text{ in}^2$

19. $36 = (2A+3) + (2A+3) + (2A)$

$36 = 6A + 6$

$30 = 6A$

$A = 5 \text{ ft}$

20. $42 = (2A+3) + (2A+3) + (2A)$

$42 = 6A + 6$

$36 = 6A$

$A = 6 \text{ ft}$

