

## Section I — +/– Feet &amp; Inches

**327**

---

1.  $10' 10'' + 18' 1'' =$

5.  $16' 3'' + 14' 1'' =$

2.  $12' 8'' + 16' 8'' =$

6.  $8' 11'' + 18' 6'' =$

3.  $15' 5'' - 11' 6'' =$

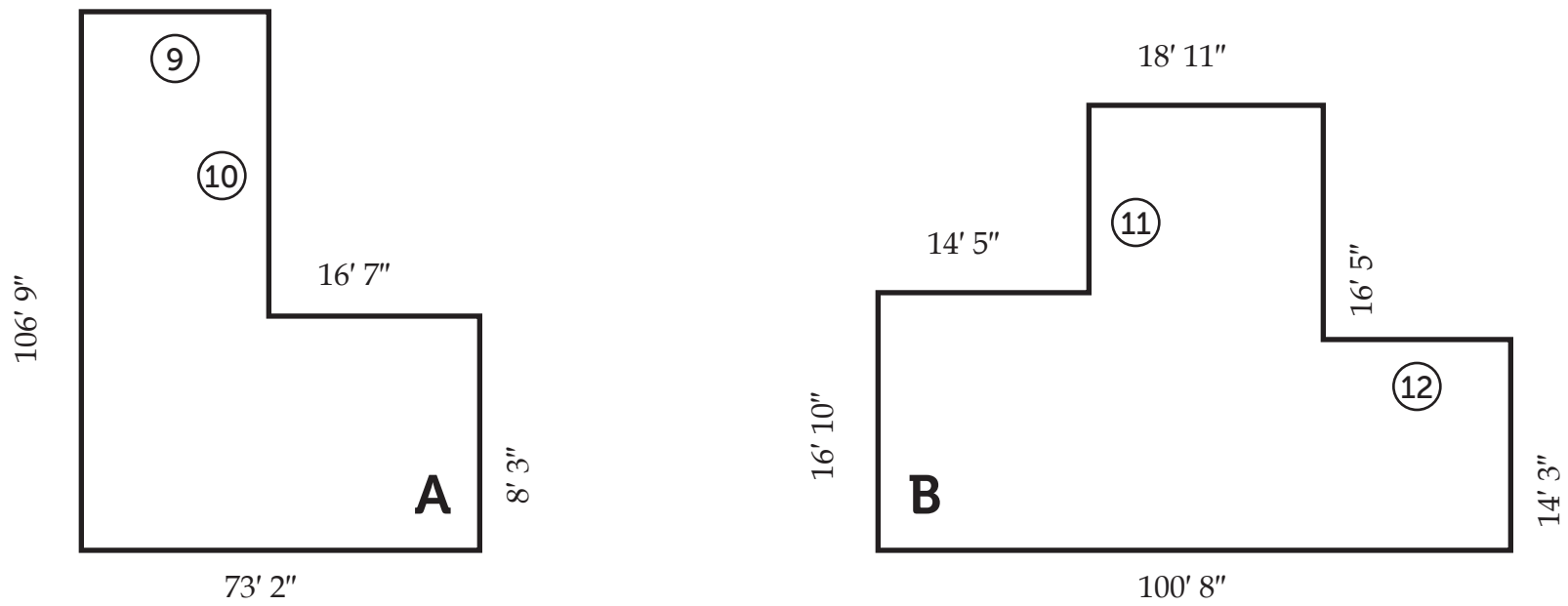
7.  $15' 5'' - 5' 3'' =$

4.  $16' 4'' - 5' 8'' =$

8.  $11' 8'' + 13' 4'' =$

Section II — Find the Missing Side & Perimeter

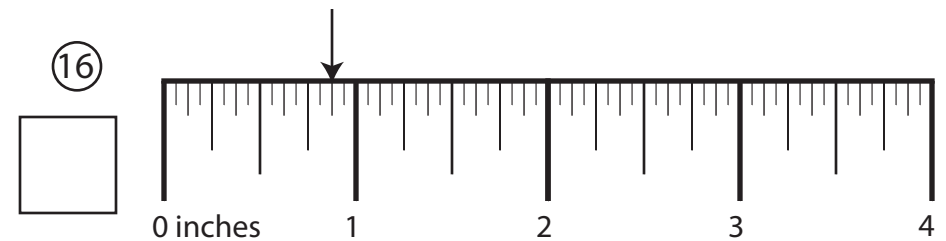
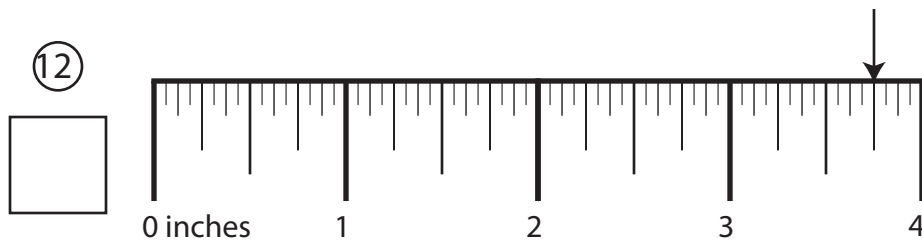
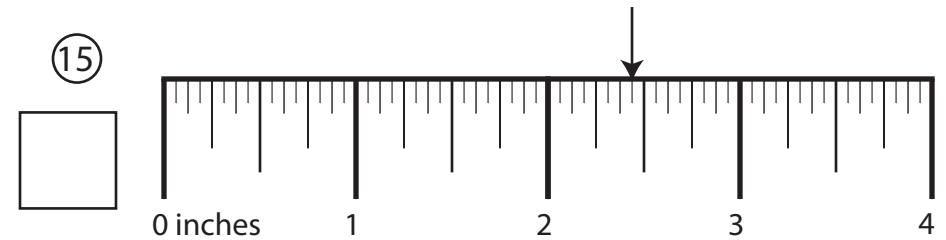
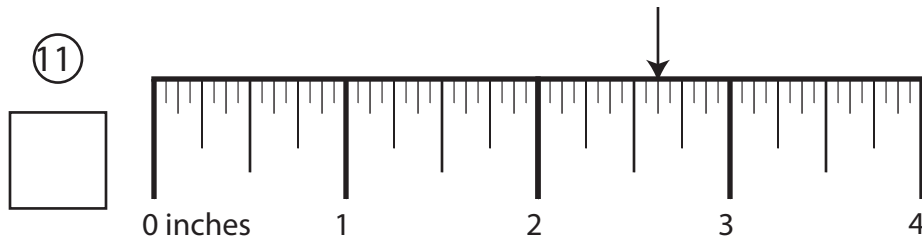
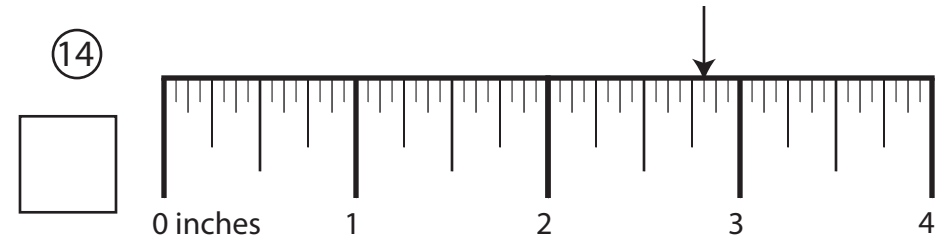
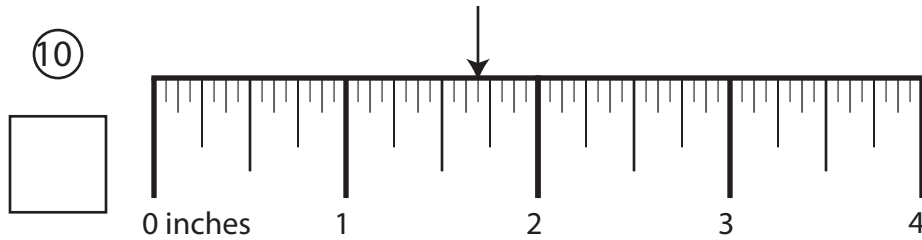
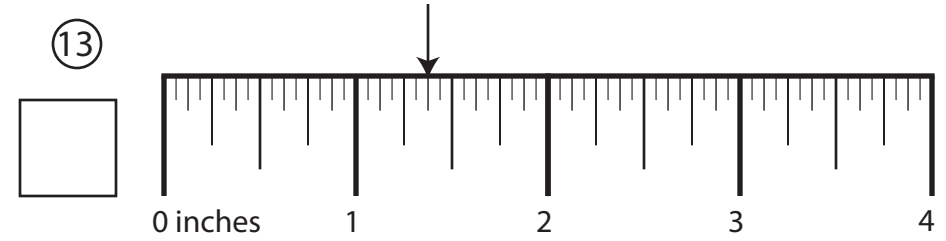
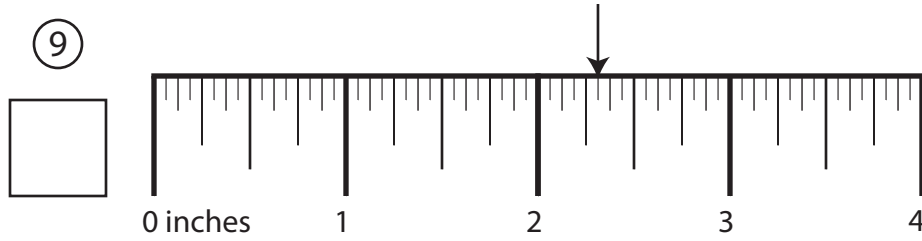
327



Side	Length	Side	Length	Shape	Perimeter
9	_____	11	_____	A	13 _____
10	_____	12	_____	B	14 _____

## Section III — Ruler Measurements

327



## Section IV — More/Less Than

# 327

---

23. What is  $\frac{1}{8}$  more than  $1\frac{1}{2}$ ?      27. What is  $\frac{1}{4}$  more than  $3\frac{5}{16}$ ?
24. What is  $\frac{3}{8}$  more than  $1\frac{1}{4}$ ?      28. What is  $\frac{5}{16}$  less than  $5\frac{1}{4}$ ?
25. What is  $\frac{3}{16}$  less than  $3\frac{5}{16}$ ?      29. What is  $\frac{5}{16}$  less than  $2\frac{3}{8}$ ?
26. What is  $\frac{1}{2}$  more than  $2\frac{1}{8}$ ?      30. What is  $\frac{1}{16}$  more than  $2\frac{1}{4}$ ?

## Section V — Nail Penetration & Screw Hole Bits

---

**3 2 7**

*How far will a ...*

*What drill bit do you need to drill a ...*

[Remember, # or letter only, except 27/64, 14/32, 29/64]

31. 60 penny nail penetrate a 1 ¼" dry timber?

35. pilot hole for a 11 gauge screw?

32. 4 penny nail penetrate a 1 ½" dry beam?

36. pilot hole for a 6 gauge screw?

33. 15 common gauge nail penetrate a 1 ½" green rafter?

37. pilot hole for a 5 gauge screw?

34. 12 penny nail penetrate a ¾" green dimension?

38. clearance hole for a 2 gauge screw?

## Section VI — Math Calculations

327

---

39. Room A's Wall #1, made of Rosin, if inside is 59°F and outside is 77°F?
43. How many mmBTUs are generated by running a GV90+6 for 9 months?
40. Room B's Wall #4, made of Asbestos-cement, if inside is 59°F and outside is 10°F?
44. How many mmBTUs are generated by running a EVG 299 for 4 hours?
41. How many pounds of CO<sub>2</sub> are released by burning 361 pounds of Beech?
45. How many pounds of CO<sub>2</sub> are released by burning 265 pounds of Cottonwood?
42. Room B's Wall #4, made of Hardwoods (oak, maple..), if inside is 57°F and outside is 4°F?
46. Propyl Alcohol cycle, 968 (lb/hr) flowrate, outside is 56°F, inside 72°F?

Section VI — **Math** Calculations**327**

---

47. Propylene Glycol cycle, 594 (lb/hr) flowrate, outside is 44°F, inside 86°F?
51. Alcohol, propyl cycle, 1318 (lb/hr) flowrate, outside is 86°F, inside 77°F?
48. Room B's Floor, made of Asphalt, if inside is 71°F and outside is 60°F?
52. How many pounds of CO<sub>2</sub> are released by burning motor gasoline for 3 weeks in a AB-80C?
49. Room C's TSA, made of Foam glass, if inside is 79°F and outside is 49°F?
53. How many pounds of CO<sub>2</sub> are released by burning motor gasoline for 5 weeks in a CGi-3?
50. Room A's Wall #3, made of Polyethylene low density, PEL, if inside is 85°F and outside is 56°F?
54. Room B's Wall #3, made of Asbestos-cement board, if inside is 64°F and outside is 104°F?

## Section VII — Blueprint Calculations

# 327

---

55. Shape A, Scale = 48, molding job. 59. Shape I, Scale = 8, panel job.

56. Shape E, Scale = 48, pipe job. 60. Shape M, Scale = 50, panel job.

57. Shape C, Scale = 8, molding job. 61. Shape L, Scale = 35, caulking job.

58. Shape J, Scale = 24, tile job. 62. Shape N, Scale = 35, carpet job.