







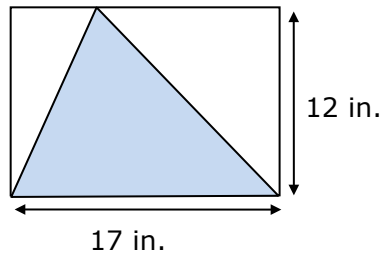




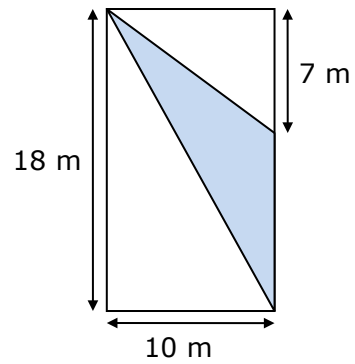


19. Find the shaded area of each rectangle.

(a)

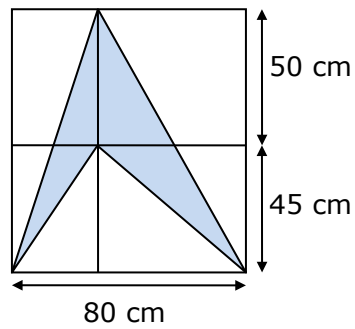


(b)

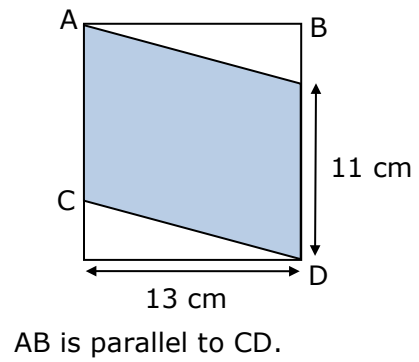


[4]

(c)



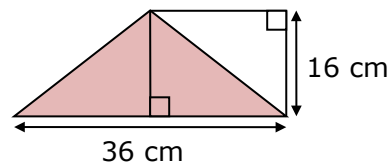
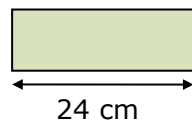
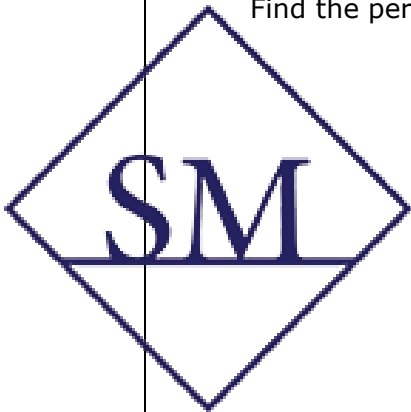
(d)



[4]

20. The area of the shaded rectangle is the same as the area of the shaded triangle. Find the perimeter of the rectangle. (Drawings are not to scale.)

[2]



21. Express the ratio 16 : 20 in its simplest form. [1]

22. There are 24 students in class. 10 of them are boys. Find the ratio of the number of boys to the number of girls in class. [1]

23. A pole, 135 cm long, is painted red, white, and blue in the ratio 3 : 4 : 2. What length of the pole is painted white? [2]

24. Abe, Barry, and Carlos have 256 marbles altogether. The ratio of Abe's marbles to Barry's marbles is 4 : 3. Barry has 14 more marbles than Carlos. How many marbles does Abe have? [2]



## Answer Key

1. (a) forty-nine billion, seven hundred fifty-two million, 3 thousand, ninety-six  
(b) ten billion  
(c) 5  
(d) 50,000,000,000  
(e) greater than, by 27,000
2. (a) 7,700,000  
(b) 4,600,000
3. Accept reasonable estimates.  
(a) 3,500,000 (b) 400,000  
(c) 4,000,000 (d) 80
4.  $2 \times 2 \times 3 \times 7$
5. (a) 60,000  
(b) 101,000  
(c) 1,800
6. (a) 0  
(b) 800  
(c) 10
7. (a) 3; 3  
(b) 30  
(c) 42  
(d) 4; 4
8. (a) 870 (b) 1,346  
(c) 136 (d) 618  
(e) 396 (f) 2,320  
(g) 800 (h) 132
9. (a) 24,896 (b) 539,251  
(c) 96 (d) 32  
(e)  $2\frac{3}{4}$  (f)  $190\frac{2}{3}$
10. \$36
11. \$500
12. (a)  $6\frac{11}{15}$  (b)  $2\frac{4}{9}$   
(c)  $4\frac{1}{2}$  (d)  $7\frac{1}{2}$
13. (a) 17 (b)  $\frac{1}{4}$   
(c)  $3\frac{2}{3}$  (d)  $\frac{1}{10}$   
(e)  $\frac{3}{20}$  (f) 20  
(g) 10 (h)  $1\frac{1}{5}$
14. \$175
15. \$21
16. 75 liters
17. (a) 3 (b) 12.5 cm
18. 28 cm<sup>2</sup>
19. (a) 102 in.<sup>2</sup> (b) 55 m<sup>2</sup>  
(c) 2000 cm<sup>2</sup> (d) 143 cm<sup>2</sup>
20. 72 cm
21. 4 : 5
22. 5 : 7
23. 60 cm
24. 108