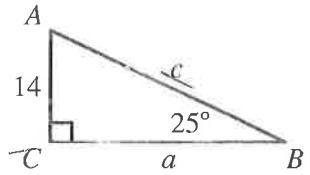
PRACTICE EXERCISES

Solve each right triangle *ABC*.

1.



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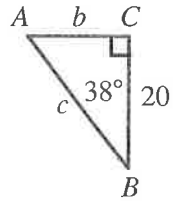

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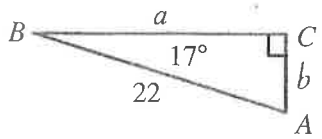

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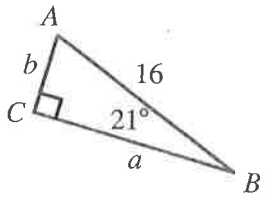

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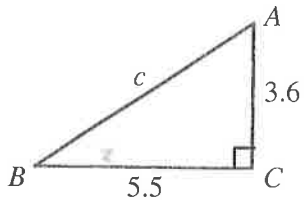

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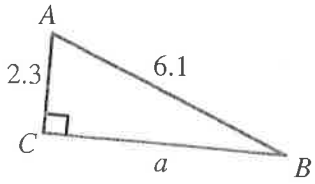

Solve each right triangle *ABC* ($\angle C = 90°$) given the measure of one angle and the length of one side.

7. $\angle A = 58°$, $c = 27$

8. $\angle B = 29°$, $c = 14$

9. $\angle B = 15.1°$, $c = 10.7$

10. $\angle A = 17.2°$, $c = 29.4$

11. $\angle A = 63°$, $a = 11$

12. $\angle B = 24°$, $b = 36$

13. $\angle B = 42.5°$, $a = 188$

14. $\angle A = 70.5°$, $b = 276$

Solve each right triangle *ABC* ($\angle C = 90°$) given the measure of one angle and the length of one side.

15. $\angle A = 36°41'$, $a = 19.32$

16. $\angle B = 42°35'$, $a = 71.22$

17. $\angle B = 72°28'$, $a = 84.84$

18. $\angle A = 80°12'$, $a = 36.22$

Solve each right triangle *ABC* ($\angle C = 90°$) given the lengths of two sides.

19. $b = 17.62$, $c = 23.91$

20. $b = 13.42$, $c = 26.31$

21. $a = 18.65$, $b = 14.22$

22. $a = 7.613$, $c = 14.05$

23. $a = 1632$, $c = 2015$

24. $a = 1503$, $b = 1635$

Use the given information for triangle *ABC* ($\angle C = 90°$) to express the other five trigonometric functions of $\angle A$ in terms of *t*.

25. $\sin A = \dfrac{3}{t}$

26. $\tan A = \dfrac{1}{t}$

27. $\sec A = t$

28. For any right triangle *DEF* ($\angle F = 90°$), find the numerical value of $(\cos D)^2 + (\cos E)^2 + (\cos F)^2$.