1. $\sqrt{7} \cdot \sqrt{5}$

2. $\sqrt{3} \cdot \sqrt{7}$

3. $\sqrt{5} \cdot \sqrt{11}$

4. $\sqrt{13} \cdot \sqrt{5}$

5. $\sqrt{3} \cdot \sqrt{10m}$

6. $\sqrt{7a} \cdot \sqrt{13}$

7. $\sqrt{2x} \cdot \sqrt{15}$

8. $\sqrt{17} \cdot \sqrt{2b}$

9. $\sqrt{3} \cdot \sqrt{7} \cdot \sqrt{2}$

10. $\sqrt{5} \cdot \sqrt{7} \cdot \sqrt{3}$

11. $\sqrt{3} \cdot \sqrt{12}$

12. $\sqrt{7} \cdot \sqrt{7}$

13. $\sqrt{10} \cdot \sqrt{10}$

14. $\sqrt{5} \cdot \sqrt{15}$

37. $(\sqrt{x} + 3)(\sqrt{x} - 3)$

38. $(\sqrt{a} - 4)(\sqrt{a} + 4)$

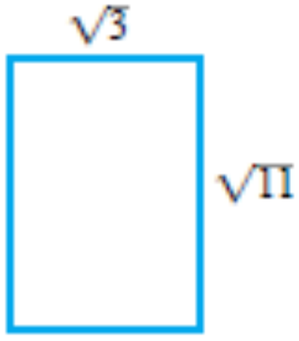
39. $(\sqrt{3} + 2)^2$

40. $(\sqrt{5} - 3)^2$

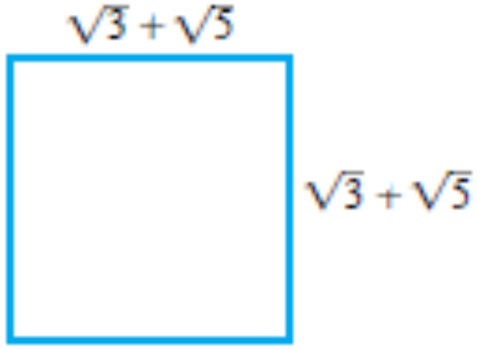
41. $(\sqrt{y} - 5)^2$

42. $(\sqrt{x} + 4)^2$

57. Area of a rectangle. Find the area of the rectangle shown in the figure.



58. Area of a rectangle. Find the area of the rectangle shown in the figure.



$$\frac{\sqrt{a}}{\sqrt{b}} =$$

Example 5

Simplifying Radical Expressions

Simplify.

(a) $\frac{\sqrt{48}}{\sqrt{3}} =$.

(b) $\frac{\sqrt{200}}{\sqrt{2}} =$

(c) $\frac{\sqrt{125x^2}}{\sqrt{5}}$

CHECK YOURSELF 5

Simplify.

(a) $\dfrac{\sqrt{75}}{\sqrt{3}}$ **(b)** $\dfrac{\sqrt{81s^2}}{\sqrt{9}}$

Example 6

Simplifying Radical Expressions

Simplify the expression

$$\frac{3 + \sqrt{72}}{3}$$

CHECK YOURSELF 6

Simplify $\dfrac{15 + \sqrt{75}}{5}$.

Target 11.3 (part 2)- I can _____ expressions containing radicals

Things to know:

Example 7

19) $\dfrac{2+5\sqrt{3}}{-4+4\sqrt{2}}$

Check Yourself 7

20) $\dfrac{\sqrt{5}+2\sqrt{2}}{4-\sqrt{5}}$

43. $\dfrac{\sqrt{98}}{\sqrt{2}}$

44. $\dfrac{\sqrt{108}}{\sqrt{3}}$

45. $\dfrac{\sqrt{72a^2}}{\sqrt{2}}$

46. $\dfrac{\sqrt{48m^2}}{\sqrt{3}}$

47. $\dfrac{4 + \sqrt{48}}{4}$

48. $\dfrac{12 + \sqrt{108}}{6}$

49. $\dfrac{5 + \sqrt{175}}{5}$

50. $\dfrac{18 + \sqrt{567}}{9}$

51. $\dfrac{-8 - \sqrt{512}}{4}$

52. $\dfrac{-9 - \sqrt{108}}{3}$

53. $\dfrac{6 + \sqrt{18}}{3}$

53. $\dfrac{6 - \sqrt{20}}{2}$

55. $\dfrac{15 - \sqrt{75}}{5}$

56. $\dfrac{8 + \sqrt{48}}{4}$

1) $\frac{\sqrt{15}}{5\sqrt{20}}$

2) $\frac{\sqrt{8}}{\sqrt{100}}$

3) $\frac{\sqrt{6}}{\sqrt{27}}$

4) $\frac{3\sqrt{20}}{2\sqrt{4}}$

5) $\frac{4}{\sqrt{5}}$

6) $\frac{\sqrt{4}}{5\sqrt{3}}$

7) $\frac{\sqrt{5}}{\sqrt{3}}$

8) $\frac{\sqrt{2}}{2\sqrt{3}}$