

CRAFT

Show All Your Working Out

Re-Teach

1. Simplify $(5^2 \times 5^3)$
2. Simplify $(7^4 \div 7^2)$
3. Simplify $(2^3)^2$
4. Simplify $(4^5 \times 4^{-2})$
5. Simplify $(\frac{6^8}{6^5})$

Consolidate

1. Evaluate $(8^{-\frac{2}{3}})$
2. Simplify $(125^{\frac{2}{3}})$
3. Evaluate $(16^{-\frac{3}{4}})$
4. Simplify $(\left(\frac{27}{8}\right)^{-\frac{2}{3}})$
5. Simplify $(4a^4)^{\frac{1}{2}} \div (2a^{-2})$

Master

1. Simplify $(\sqrt{50})$
2. Simplify $(\sqrt{72} + \sqrt{32})$
3. Simplify $(\sqrt{12} \times \sqrt{27})$
4. Simplify $(\frac{\sqrt{75} - \sqrt{48}}{\sqrt{3}})$
5. Rationalise the denominator: $(\frac{6}{\sqrt{3}})$

Answers

Re-Teach Answers

1.
 $\backslash(5^{2+3} = 5^5 = 3125 \backslash)$
2.
 $\backslash(7^{4-2} = 7^2 = 49 \backslash)$
3.
 $\backslash(2^{3 \times 2} = 2^6 = 64 \backslash)$
4.
 $\backslash(4^{5 + (-2)} = 4^3 = 64 \backslash)$
5.
 $\backslash(6^{8-5} = 6^3 = 216 \backslash)$

Consolidate Answers

1.
 $\backslash((2^3)^{-\frac{2}{3}} = 2^3 \times (-\frac{2}{3}) = 2^{-2} = \frac{1}{4} \backslash)$
2.
 $\backslash((5^3)^{\frac{2}{3}} = 5^3 \times \frac{2}{3} = 5^2 = 25 \backslash)$
3.
 $\backslash((2^4)^{-\frac{3}{4}} = 2^4 \times (-\frac{3}{4}) = 2^{-3} = \frac{1}{8} \backslash)$
4.
 $\backslash(\left(\frac{3^3}{2^3}\right)^{-\frac{2}{3}} = \left(\frac{3}{2}\right)^3 \times (-\frac{2}{3}) = \left(\frac{3}{2}\right)^{-2} = \left(\frac{2}{3}\right)^2 = \frac{4}{9} \backslash)$
5.
 $\backslash(\sqrt{4a^4} \div (2a^{-2}) = 2a^2 \times \frac{1}{2a^{-2}} = a^{2 - (-2)} = a^4 \backslash)$

Master Answers

1.
 $\backslash(\sqrt{25 \times 2} = \sqrt{25} \times \sqrt{2} = 5\sqrt{2} \backslash)$
2.
 $\backslash(\sqrt{36 \times 2} + \sqrt{16 \times 2} = 6\sqrt{2} + 4\sqrt{2} = 10\sqrt{2} \backslash)$
3.
 $\backslash(\sqrt{12 \times 27} = \sqrt{324} = 18 \backslash)$
4.
 $\backslash(\frac{5\sqrt{3} - 4\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{\sqrt{3}} = 1 \backslash)$
5.
 $\backslash(\frac{6\sqrt{3}}{\sqrt{3}} \times \frac{\sqrt{3}}{\sqrt{3}} = \frac{6\sqrt{3}}{3} = 2\sqrt{3} \backslash)$