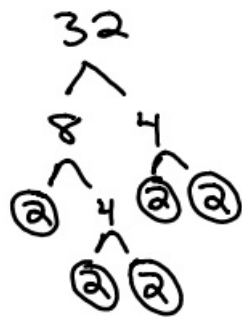


12-17-18 5th Geo

$$\frac{6}{8} = \frac{3}{4}$$

$$\sqrt{32}$$

Prime factorization



$$32 = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 = 2^5$$

$$\sqrt{32} =$$

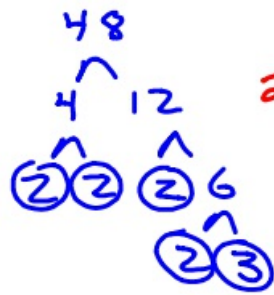
$$2 \cdot 2 \sqrt{2 \cdot 2 \cdot 2 \cdot 2} \cdot 2$$
$$4\sqrt{2}$$

① Simplify $\sqrt{40}$

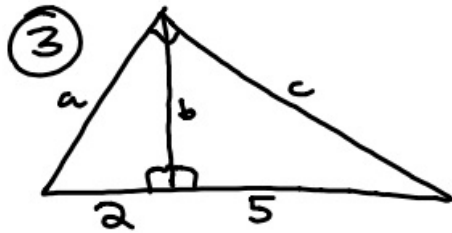


$$2 \sqrt{2 \cdot 2 \cdot 2 \cdot 5}$$
$$2\sqrt{10}$$

② Simplify $\sqrt{48}$



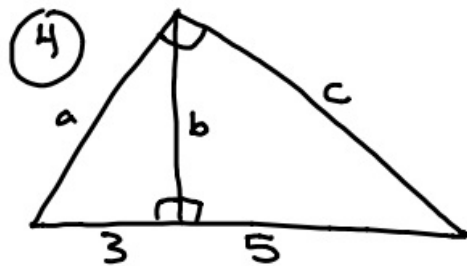
$$2 \cdot 2 \sqrt{2 \cdot 2 \cdot 2 \cdot 2 \cdot 3}$$
$$4\sqrt{3}$$



$$b = \sqrt{2 \cdot 5} = \sqrt{10}$$

$$a = \sqrt{2 \cdot 7} = \sqrt{14}$$

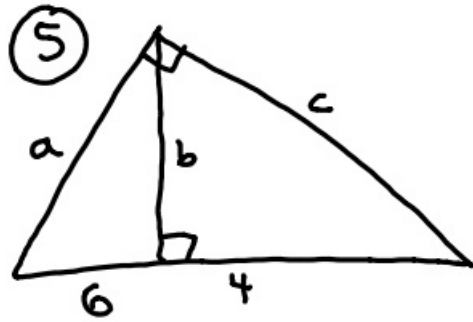
$$c = \sqrt{5 \cdot 7} = \sqrt{35}$$



$$a = \sqrt{3 \cdot 8} = \sqrt{24} = 2\sqrt{6}$$

$$b = \sqrt{3 \cdot 5} = \sqrt{15}$$

$$c = \sqrt{5 \cdot 8} = \sqrt{40} = 2\sqrt{10}$$



$$a = \sqrt{6 \cdot 10} = \sqrt{60} = 2\sqrt{15}$$

$$b = \sqrt{6 \cdot 4} = \sqrt{24} = 2\sqrt{6}$$

$$c = \sqrt{4 \cdot 10} = \sqrt{40} = 2\sqrt{10}$$

⑥ $2\sqrt{5} \cdot 3\sqrt{5}$ $\sqrt{x} \cdot \sqrt{x} = x$

$$2 \cdot 3 \cdot \boxed{\sqrt{5} \cdot \sqrt{5}}$$

$$2 \cdot 3 \cdot 5$$

$$30$$

⑦ $3\sqrt{2} \cdot 4\sqrt{5}$

$$12\sqrt{10}$$

⑧ $\boxed{2\sqrt{8}} \cdot \boxed{3\sqrt{2}}$

$$6\sqrt{16}$$

$$6 \cdot 4$$

$$24$$

$$\textcircled{9} \quad 2\sqrt{2} \cdot 3\sqrt{3} \cdot 2\sqrt{3}$$

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

$$36\sqrt{2}$$

OR

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

$$12\sqrt{18}$$

$$12\sqrt{3 \cdot 3 \cdot 2}$$

$$36\sqrt{2}$$

$$4! = 4 \cdot 3 \cdot 2 \cdot 1$$

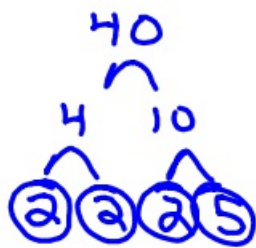
$$5! = 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1$$

12-17-18 6th Geo

$$\frac{18}{20} = \frac{9}{10}$$

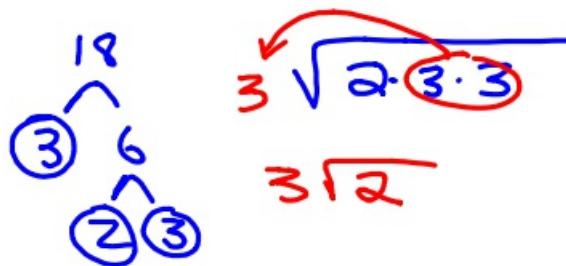
Simplify $\sqrt{40}$

Prime factorization

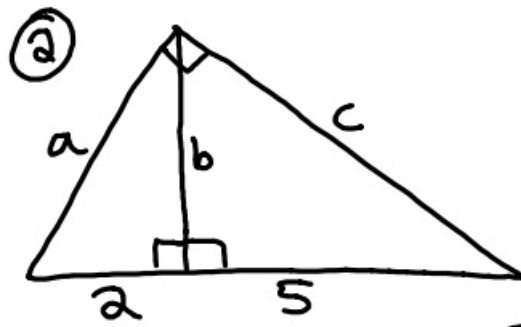


$$\sqrt{40}$$
$$2\sqrt{2 \cdot 2 \cdot 2 \cdot 5}$$
$$2\sqrt{10}$$

① Simplify $\sqrt{18}$



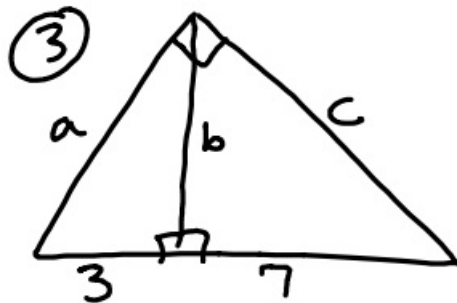
$$3\sqrt{2 \cdot 3 \cdot 3}$$
$$3\sqrt{2}$$



$$a = \sqrt{2 \cdot 7} = \sqrt{14}$$

$$b = \sqrt{2 \cdot 5} = \sqrt{10}$$

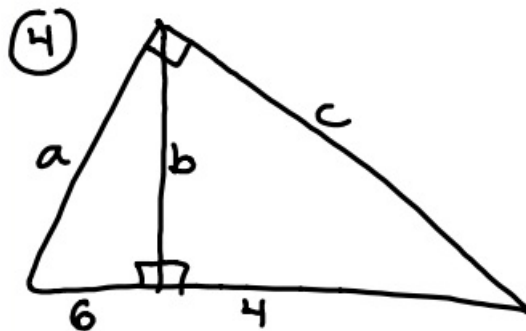
$$c = \sqrt{5 \cdot 7} = \sqrt{35}$$



$$a = \sqrt{3 \cdot 10} = \sqrt{30}$$

$$b = \sqrt{3 \cdot 7} = \sqrt{21}$$

$$c = \sqrt{7 \cdot 10} = \sqrt{70}$$



$$a = \sqrt{6 \cdot 10} = \sqrt{60} = 2\sqrt{15}$$

$$b = \sqrt{6 \cdot 4} = \sqrt{24} = 2\sqrt{6}$$

$$c = \sqrt{4 \cdot 10} = \sqrt{40} = 2\sqrt{10}$$

$$\textcircled{5} \quad \sqrt{7} \cdot \sqrt{7} = 7 \quad \sqrt{x} \cdot \sqrt{x} = x$$

$$\textcircled{6} \quad 2\sqrt{3} \cdot 5\sqrt{3}$$

$$2 \cdot 3 \cdot 5 = 30$$

OR

$$10\sqrt{9}$$

$$10 \cdot 3$$

$$30$$

$$\textcircled{7} \quad 2\sqrt{8} \cdot 3\sqrt{3}$$

$$6\sqrt{24}$$

$$\text{मि} = \sqrt{2 \cdot 2 \cdot 2 \cdot 3}$$

$$6 \cdot 2\sqrt{6} \quad 2\sqrt{6}$$

$$12\sqrt{6}$$

$$\textcircled{8} \quad 3\sqrt{5} \cdot 2\sqrt{2}$$

$$6\sqrt{10}$$

$$\textcircled{9} \quad 2\sqrt{8} \cdot 5\sqrt{2}$$

$$10\sqrt{16}$$

$$10 \cdot 4$$

$$40$$

$$4! = 4 \cdot 3 \cdot 2 \cdot 1$$

$$5! = 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1$$