

Proportions Assignment

Part 1: Draw a  if the given proportion is true and a  if false.

1. $13:26 = 26:52$

2. $100:75 = 25:3$

3. $6:8 = 75:100$

4. $16:20 = 36:45$

5. $49:70 = 10:7$

Part 2: Solve for the unknown.

1. $a:6 = 2:5$

2. $5:2 = b:4$

3. $15:21 = 20:c$

4. $108:d = 18:7$

5. $40:2 = e:5$

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6. $f:126 = 3:14$

7. $1050:60 = 350:g$

Part 3: Solve the proportion to find the answer.

1. In one publishing office, there are 5 printers for 20 computers. Another publishing office has 16 printers for 64 computers. Is the ratio of printers to computers of the two publishing offices proportional?
2. In a football league, the ratio of male to female is 4:3. If there are 48 female players, how many are males?
3. 6 liters of water for every 8 lemons is needed to make lemonade. How many liters of water is needed for 80 lemons?

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Answers:

Part 1: Draw a  if the given proportion is true and a  if false.

1. $13:26 = 26:52$



2. $100:75 = 25:3$



3. $6:8 = 75:100$



4. $16:20 = 36:45$



5. $49:70 = 10:7$



Part 2: Solve for the unknown.

1. $a:6 = 2:5$

Solution: $a = 2.4$

2. $5:2 = b:4$

Solution: $b = 10$

3. $15:21 = 20:c$

Solution: $c = 28$

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4. $108:d = 18:7$

Solution: $d = 42$

5. $40:2 = e:5$

Solution: $e = 100$

6. $f:126 = 3:14$

Solution: $f = 117$

7. $1050:60 = 350:g$

Solution: $g = 20$

Part 3: Solve the proportion to find the answer.

1. In one publishing office, there are 5 printers for 20 computers. Another publishing office has 16 printers for 64 computers. Is the ratio of printers to computers of the two publishing offices proportional?

Solution:

$$5:20 = 16:64 \rightarrow (5)(64) = (20)(16) \rightarrow 320 = 320, \text{ YES!}$$

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2. In a football league, the ratio of male to female is 4:3. If there are 48 female players, how many are males?

Solution:

$$4:3 = x:48$$

$$x = 64 \text{ males}$$

3. 6 liters of water for every 8 lemons is needed to make lemonade. How many liters of water is needed for 80 lemons?

Solution:

$$6:8 = x:80$$

$$x = 60 \text{ liters of water}$$