Similar triangles: find missing sides worksheet – Grade 8

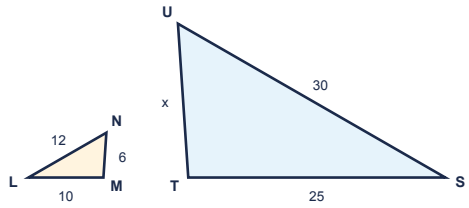
Grade 8 · Mixed level · 20 questions · **Version X8498**

Name: _____ Date: _____ Score: ___ / 20

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1. These triangles are similar. Find x.



   Answer: _____

2. △GHI ~ △JKL with a scale factor of 4. HI = 8. How long is KL?

   Answer: _____

3. △PQR ~ △XYZ with a scale factor of 1.5. QR = 4. How long is YZ?

   Answer: _____

4. △LMN ~ △STU with a scale factor of 2. MN = 12. How long is TU?

   Answer: _____

5. △PQR ~ △XYZ. PQ = 10 and XY = 20. What is the scale factor?

   Answer: _____

6. △GHI ~ △JKL. GH = 8 and JK = 20. What is the scale factor?

   Answer: _____

7. △LMN ~ △STU. LM = 8 and ST = 16. What is the scale factor?

   Answer: _____

8. △LMN ~ △STU. LM = 3, MN = 8, ST = 9. How long is TU?

   Answer: _____

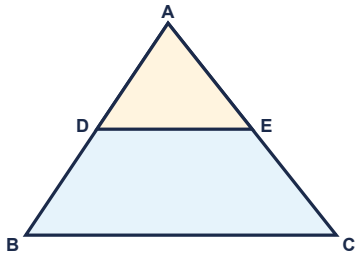
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9. △LMN ~ △STU with a scale factor of 4. The perimeter of △LMN is 28 cm. What is the perimeter of △STU, in cm?

   Answer: _____ cm

10. In △ABC, DE ∥ BC, with AD = 3, DB = 3 and DE = 24. Find BC.



   Answer: _____

11. △ABC ~ △DEF with a scale factor of 2.5. The perimeter of △ABC is 25 cm. What is the perimeter of △DEF, in cm?

   Answer: _____ cm

12. A 20 dm pole casts a 40 dm shadow. At the same time a tree casts a 160 dm shadow. How tall is the tree, in dm?

   Answer: _____

13. △GHI ~ △JKL with a scale factor of 2. The perimeter of △GHI is 28 cm. What is the perimeter of △JKL, in cm?

   Answer: _____ cm

14. △GHI ~ △JKL. GH = 12, HI = 11, JK = 36. How long is KL?

   Answer: _____

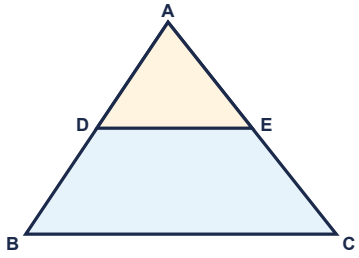
15. △GHI ~ △JKL. GH = 8, JK = 16 and HI + KL = 18. How long is HI?

   Answer: _____

16. △LMN ~ △STU. LM = 10, ST = 20 and MN + TU = 33. How long is MN?

   Answer: _____

17. In △ABC, DE ∥ BC. AD = 4, DB = 16 and AE = 2. Find EC.



   Answer: _____

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18. A 17 dm person stands 20 dm from a lamp post of height 51 dm. How long is the person's shadow, in dm?

    Answer: _____

19. An 18 dm person stands 40 dm from a lamp post of height 54 dm. How long is the person's shadow, in dm?

    Answer: _____

20. $\triangle ABC \sim \triangle DEF$. $AB = 10$, $DE = 40$ and $BC + EF = 60$. How long is BC?

    Answer: _____

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Answer key · Version X8498

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1. **15**
2. **32**
3. **6**
4. **24**
5. **2**
6. **2.5**
7. **2**
8. **24**
9. **112**
10. **48**
11. **62.5**
12. **80**
13. **56**
14. **33**
15. **6**
16. **11**
17. **8**
18. **10**
19. **20**
20. **12**

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