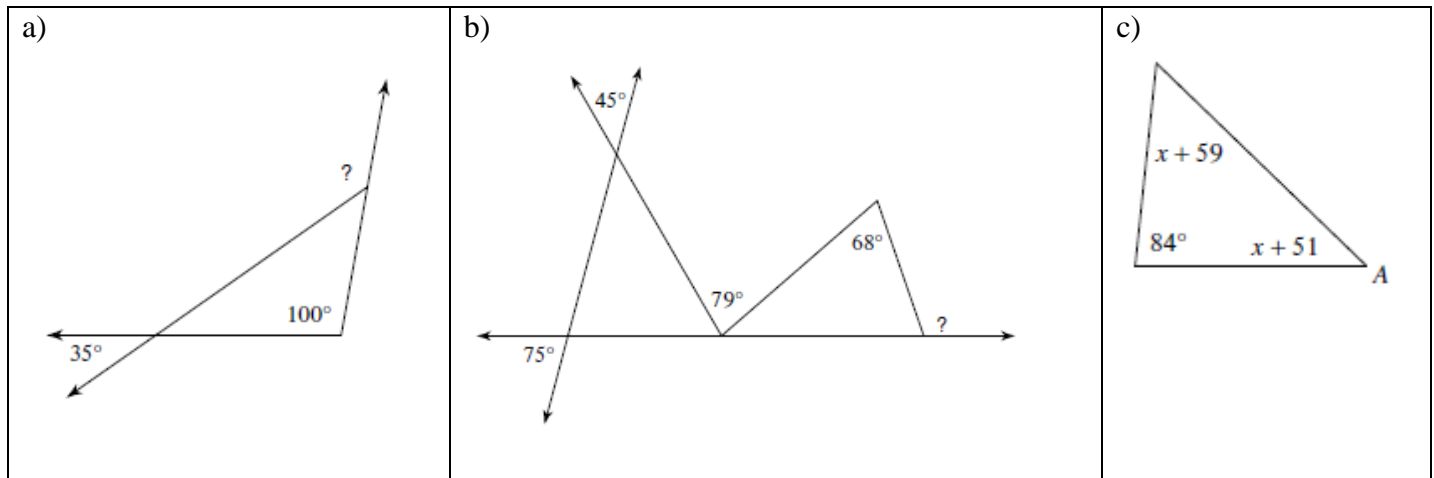


Review 2

1. Find the unknowns.



2. If line A and B are parallel, find the measures of the numbered angles in the figures below.

Figure 1

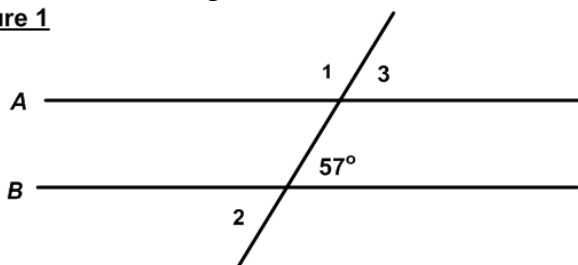
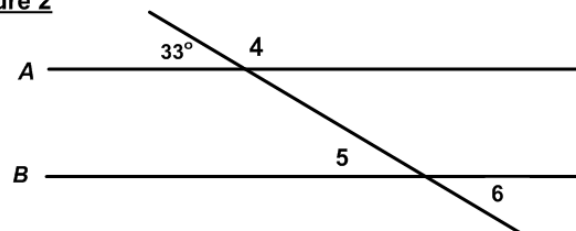
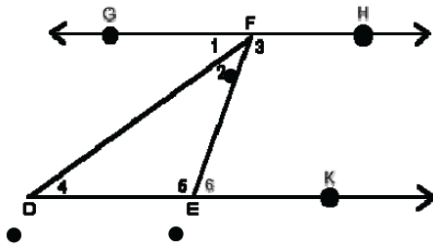


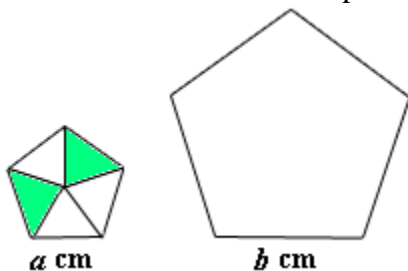
Figure 2



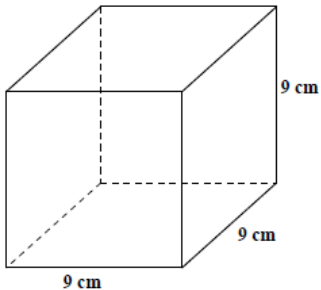
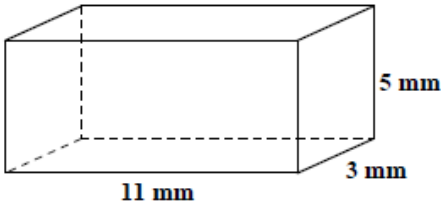
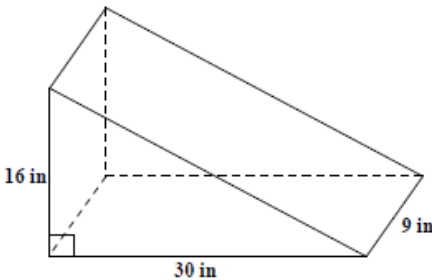
3. Given: GH is parallel to DK, angle 6 = 75, angle 2 = 30. Find angle 1 – 6.



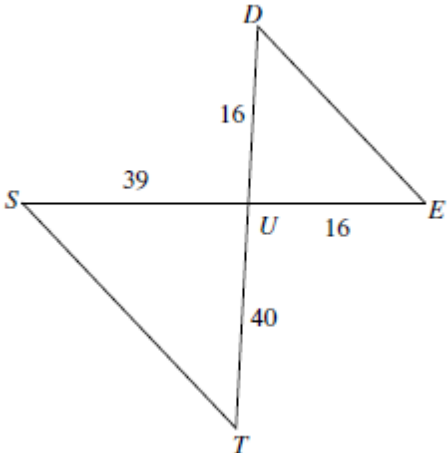
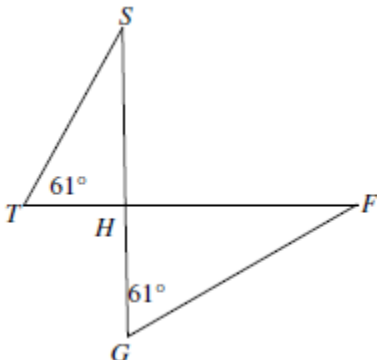
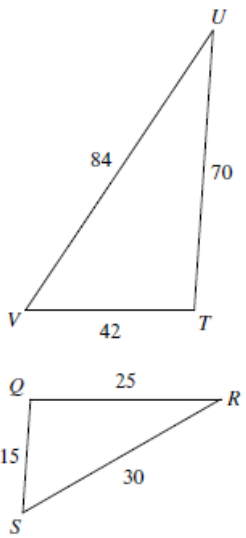
4. The figure shows two regular pentagons which are similar. If the area of the larger pentagon is 45 cm^2 then find the area of the shaded portion of the smaller pentagon. [Given $a = 8$ and $b = 12$.]



5. Find the surface area and volume of each prism.

<p>a)</p>  <p>A cube with side lengths of 9 cm.</p>	<p>b)</p>  <p>A rectangular prism with dimensions 11 mm by 3 mm by 5 mm.</p>	<p>c)</p>  <p>A right triangular prism with a base of 30 in, a height of 16 in, and a slant edge of 9 in.</p>
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6. State if the triangles in each pair are similar. If so, state how you know they are similar and complete a similarity statement.

<p>a)</p>  <p>Two triangles, $\triangle SUE$ and $\triangle TUD$, sharing vertex U. Side $SU = 39$, $UE = 16$, $UD = 16$, $UT = 40$.</p>	<p>b)</p>  <p>Two triangles, $\triangle SHG$ and $\triangle FHE$, sharing vertex H. Angle $\angle SHT = 61^\circ$, angle $\angle FGH = 61^\circ$.</p>	<p>c)</p>  <p>Two triangles, $\triangle VUT$ and $\triangle QRS$. Side $VU = 84$, $VT = 42$, $UT = 70$. Side $QR = 25$, $QS = 15$, $RS = 30$.</p>
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7. Find the mean, median, mode, and range of the given data set, which shows the heights (in inches) of 10 students in Mr. Brown's class.

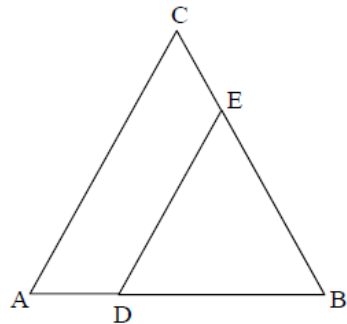
63, 58, 62, 59, 64, 65, 65, 60, and 75

Math grade 8 camp on class 22 review

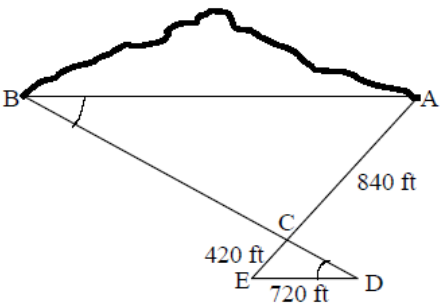
8. A surveyor asked a group of people what they would like to do in their free time. The results are recorded in the table. Find the experimental probability of a person interested in reading magazines in his/her free time. How about shopping? How about not Watching TV?

Activity	Number of people
Shopping	22
Watching T.V.	26
Reading Magazines	30
Others	6

9. Given: $AB = CB = 9\text{ cm}$, $DB = \frac{2}{3}AB$ and $EB = \frac{2}{3}CB$
 Prove: $\triangle ABC \sim \triangle DBE$



10. A surveyor needs to determine the distance across the base (AB) of a mountain. This surveyor can directly measure the lengths given below.
- Is $\triangle EDC$ similar to $\triangle ABC$? Use mathematics to justify your answer.
 - What is the measure of the base of the mountain?



Note: The figure is not drawn to scale.