

Apprenticeship and Workplace Math 10

LG 12&13

ANGLES AND PARALLEL LINES



INTRODUCTION:

Do you like designing? Need to create angles and lines in your designs?
Check out pages 172-173.



LEARNING GUIDE EXPECTATIONS:

On the completion of this learning guide you will be able to:

- 1) Measure, draw, and describe angles.
- 2) Estimate the measure of angles.
- 3) Use certain angles to determine whether two lines are parallel.
- 4) Solve problems involving angles and pairs of angles, and parallel, non-parallel, perpendicular, and transversal lines.



EVALUATION:

You are ready to progress to the next learning guide when you can demonstrate your understanding of the above expectations. Please refer to your Mathematics 10 (A&W) Marks Record Sheet to determine the assessment.



RESOURCES NEEDED:



Math Works 10 Text

LEARNING ACTIVITIES:



Expectation #1: Measure, draw, and describe angles and estimate the measure of angles.



1. In the Math Works 10 text, read pages 173 – 183 and work through Examples 1, ACTIVITY 5.1 FIVE ANGLES, Examples 1 &2, ACTIVITY 5.2 CREATE A REFERENTS DIAGRAM, Example 3, ACTIVITY 5.3 USING ANGLES IN WEATHER REPORTING, and Example 4.



2. In your math journal, define the following terms: *angle*, *true bearing*, *angle measure*, *angle referent*, *complementary angles* and *supplementary angles*.



3. In the Math Works 10 text, complete questions #1-6, (#7 if you want a challenge) on pages 184-185.



4. In the Math Works 10 text, read pages 186 – 191 and work through Examples 1, ACTIVITY 5.4 DRAW A KITCHEN COUNTERTOP PLAN, ACTIVITY 5.5 CROSS-BRACING AND CROSS-STITCHING.



5. In your math journal, define the following terms: *angle bisector* and *framing square*.



6. In the Math Works 10 text, complete questions #1-7, (#8 if you want a challenge) on pages 192-195.



Expectation #2: Use certain angles to determine whether two lines are parallel.



1. In the Math Works 10 text, read pages 196 – 204 and work through ACTIVITY 5.6 MAPPING AN AIRPORT RUNWAY and Examples 1 & 2.



2. In your math journal, define the following terms: *vertically opposite angles*, *transversal*, *corresponding angles*, *alternate interior angles*, and *alternate exterior angles*.



3. In the Math Works 10 text, complete questions #1-3 (#4 if you want a challenge) on pages 204-207.



Expectation #3: Solve problems involving angles and pairs of angles, and parallel, non-parallel, perpendicular, and transversal lines.



1. In the Math Works 10 text, read pages 208-213 and work through ACTIVITY 5.7 DESIGN A FRENCH PATTERN TILE FLOOR and Examples 1 & 2.



2. In the Math Works 10 text, complete questions #1-7 (#8 if you want a challenge) on pages 214-217.

REVIEW AND CHALLENGE



1. In the Math Works 10 text, read pages 218-219 and complete Chapter 5 Practice Your New Skills pages 220-223 #1-9.